Interest Groups

- Organizing for collective action
- Rent Seeking and Lobbying

Interest groups

- In a democratic state, citizens can form organizations (e.g. unions, professional associations) to pursue common political goals.
- Interest groups can influence policy in (at least) three ways:
 - Providing financial and other resources to politicians and parties
 - 2 Providing *information* to politicians and voters
 - 3 Exercising *market power* through strikes, boycotts, etc.
- Interest groups often have additional (non-political) purposes.

Pluralist Theory

Pluralist Theory (Bentley 1949, Truman 1958)

- Population composed of various groups (workers, employers, farmers, bankers,...) whose members have common interests different from other groups.
- Each group will pursue its interests by exerting pressure on policy makers.
- Opposing interests ⇒ "equilibrium" of interest group pressure.
- Government is led to strike a balance among the various interests in a society.

Olson (1965) - The logic of collective action

- "But it is not in fact true that the idea that groups will act in their self-interest follows logically from the premise of rational and self-interested behavior. It does not follow, because all of the individuals in a group would gain if they achieved their group objective, that they would act to achieve that objective, even if they were all rational and self-interested."
- "Indeed unless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in their common interest, rational, self-interested individuals will not act to achieve their common or group interests."

Social dilemma

- Collective action is a *public good* within each group who share some interest.
- Individuals will usually not contribute time or money to organize such action.
- This "free rider" problem is especially pronounced in *large* groups.
- ⇒ Small groups are more likely to organize.
 - Larger marginal impact of individual
 - Social pressure / informal sanctions

Collective organization of large groups

To counteract incentives to free ride, organizations representing larger groups may use

- Selective incentives: private in addition to public goods
- Coercion: cumpolsory membership

Examples

- Automobile clubs offering emergency assistance
- Unions providing insurance
- Compulsory unionism ("closed shop" agreements with employers)

Conclusions

- Influence of interest groups is not proportional to their share in the population.
- Small groups exert a disproportionately large influence on the political process.
- Organized minorities may reap benefits at the expense of large, latent groups (the "general public").

Example: Agricultural subsidies (Van Bastelaer 1998)

"The level of political pressure wielded by interest groups in food markets, and hence the level of protection they receive, is an inverse function of the relative size of their constituencies."

- In less developed countries with large agricultural sectors, farmers receive small or negative subsidies for their products. (Ghana: -26%)
- In developed countries, where farmers are a small minority, they receive large subsidies. (Switzerland: 85.9%)

Some models of interest group activities

- Rent seeking competition
- 2 Campaign contributions
- 3 Providing information (lobbying)

Economic rents and profits

- "A payment to a resource owner above the amount his resources could command in their next best alternative use." (Tollison 1982)
- Profits in a competitive market
 - Naturally occur as a result of economic change (innovation)
 - Incentives to allocate resources to most productive use
 - Profit seeking encourages productive (value creating) activities
- 'Artificial' rents
 - Profits resulting from restrictions on competition (E.g. government granted monopoly rights)
 - Coerced transfer payments

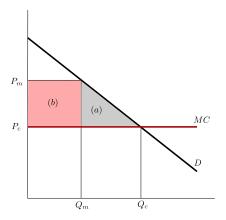
Examples of 'artificial' rents

- Liquor licenses (USA), import restrictions (developing countries)
- Requiring special qualifications (e.g. formal training)
- Direct transfers (subsidies, welfare payments)

- "The expenditure of scarce resources to capture an artificially created transfer." (Tollison 1982)
- Unlike profit seeking, these activities do not create value.
- Zero sum game among potential candidates.
- "Socially wasteful" (Tullock 1967): Resources spent on rent seeking could have been used productively for other purposes.

Example: Monopoly power (Tullock 1967)

- Suppose government can grant a monopoly license for some product
- Traditional welfare analysis: monopoly results in
 - (a) Dead weight loss due to underprovision
 - (b) Redistribution from consumers to producers



Example: Monopoly power (Tullock 1967)

Estimating social cost of monopoly

- Harberger (1954) estimated the size of the DWL triangles.
- For US manufacturing ca 1929, his estimate was only around 1 percent of GNP
- Subsequent studies extend Harberger's approach. The estimated losses are generally quite small.

Tullock (1967) criticizes this approach

- Producers are likely to compete for the monopoly right.
- Resources spent to secure artificial rents are also social costs of monopoly.
- Treating monopoly rents like lump-sum transfers ignores these costs and therefore Harberger and others underestimate these costs.

Question:

How large are the social costs of competing for artificial rents?

Model (Mueller Ch. 15.)

Rent seeking contest game ('Tullock contest')

- n players (firms)
- "Prize" worth R
- Each player invests x_i
- Probability of winning prize:

$$\pi_i(x_i) = \frac{x_i}{x_i + T}$$

where
$$T = \sum x_{-i}$$

Question:

How much of the prize will be lost due to rent seeking?

Model (Mueller Ch. 15.)

Expected utility of investing x_i :

$$E(u_i) = \frac{x_i}{x_i + T} \cdot R - x_i$$

First order condition:

$$\frac{(x_i + T) - x_i}{(x_i + T)^2}R - 1 = 0$$

Symmetric equilibrium:

- Assume that $x_i = x$ for all i
- Then T = (n-1)x

$$\Rightarrow x = \frac{n-1}{n^2}R$$

Implications:

Total expenditure on rent seeking:

$$nx = \frac{n-1}{n}R$$

- With n = 2, total expenditures is 1/2 of the prize
- As *n* gets larger, total expenditures approach the full value of the prize

Empirical evidence

 Starting with Krueger (1974) and Posner (1975), several authors have attempted to estimate the size of rents as well as rent-seeking expenditures

Mueller: Table 15.3. Estimates of welfare losses from rent seeking

Study	Economy	Year	Welfare loss
Krueger (1974)	Turkey	1968	15% GNP (trade)
Cowling and Mueller (1978)	United States	1963-6	13% GCP (monopoly)
Cowling and Mueller (1978)	United Kingdom	1968-9	7% GCP (monopoly)
Ross (1984)	Kenya	1980	38% GDP (trade)

- These numbers are calculated by estimating the value of benefits to be secured (i.e. assuming that the entire 'pie' is dissipated - perhaps taking the model too literally.).
- Another group of studies looks at the amount of money actually spent by interest groups (e.g. on lobbying and campaign contributions).
- Numbers from the second type of study are much lower so low that many authors talk about a "missing money puzzle".

Summary and implications

- Governments have powers to grant various privileges. (Monopoly licenses, regulating industry standards, subsidizing specific activities...)
- The mere fact that a government has these powers creates incentives for potential beneficiaries to engage in rent seeking activities.
- Rent seeking models assume that the effort and resources spent in order to secure these privileges are wasted. In these models, all parties would benefit if such activities were prevented.

Caveats

- In reality, many policies that create 'privileges' have reasonable justifications. (E.g. regulations mandating environmentally friendly production practices.)
- Resources spent to influence policy may not be purely wasteful if, for example, they are used to provide information. (E.g. producers spend money to provide evidence that they qualify for a subsidy.)

Main message: When granting the government powers to regulate something, one should <u>also</u> consider the costs associated with rent seeking activities that are set in motion.

Lobbying

Uncertainty in policy making

- Politicians are uncertain about
 - consequences of alternative policies (e.g. economic)
 - preferences of voters (political consequences)
- Voters uncertain about
 - competence and preferences of politicians
 - policies being proposed and implemented
 - consequences of policies in terms of own interests

Information advantage

- Organized interest groups control policy relevant information.
- Interest group members are often experts, e.g. in a given industry
- Interest groups have incentives and resources to conduct policy-relevant research
- Politicians and voters may benefit from information and advice provided by these experts.

Strategic information sharing

- If consulted, interest groups may have an incentive to provide biased information.
- On the other hand, they may wish to provide good information, lest they are not 'trusted' if they don't.
- Several authors have proposed models to investigate the conditions under which reliable information can be exchanged in such a setting.
 - The modeling approach can be adapted to investigate related issues such as media bias.

Model: Grossman and Helpman (2004)

Assumptions

- Lobbying is potentially informative interest groups information that could allow the politician to make better policy decisions.
- Information provided by lobby is "cheap talk" Policy maker cannot easily verify the interest groups' claims.
- The interaction is "one shot" cannot obtain a reputation for honesty.

Analysis - basic logic

- The politician will use information provided by the lobby only if he can 'trust' it, i.e. if it corresponds to the truth.
- If the politician trusts the lobby, it will provide information *strategically*.
- ⇒ The information provided is *credible* only if the lobby wishes to tell the truth given that it expects the politician to trust.

Sequence of events

- (1) Nature chooses state of the world $\theta \in \Theta \subset \mathbb{R}$ (random variable)
- (2) Lobby observes θ and sends a *message* $m \in \mathbb{R}$ to the policy maker
- (3) Policy maker observes the message m and chooses a policy $x \in \mathbb{R}$.

Preferences

- Payoffs depend on the state of the world θ and the policy chosen x
- The policy maker's objective function is

$$G(x,\theta) = -(x-\theta)^2$$

(Single peaked preferences with ideal point θ .)

Lobby's objective function is

$$U(x, \theta) = -(x - (\theta + \delta))^2$$

(Single peaked preferences with ideal point $\theta + \delta$.)

Simplest case: Two states of the world

- $\bullet \in \Theta = \{\underline{\theta}, \bar{\theta}\}$
- $Prob(\theta = \bar{\theta}) = p$ (This will not be important)

Politician's policy choice

- \blacksquare Choice of policy depends on the *belief* concerning θ
- Let b = probability the politician attaches to $\theta = \bar{\theta}$
- Given this belief, his expected utility from policy x is

$$EG = -b(x - \bar{\theta})^2 - (1 - b)(x - \underline{\theta})^2$$

This is maximized by setting

$$x = b\bar{\theta} + (1 - b)\theta$$

(i.e. choosing the ex post *expected* value of θ).

Under what conditions can lobbying be informative?

Step 1: Suppose that the lobby *always* truthfully reveals the state of the world. What consequences result?

- 'Telling the truth' means sending messages that 'coincide' with the true state[†].
 - When $\theta = \theta$, send message m_L (interpreted as "the state is low")
 - When $\theta = \bar{\theta}$, send message m_H (interpreted as "the state is high")
- If so, the politician's beliefs and policy choices are determined by the message.

When
$$m=m_H$$
, politician believes $b(m_H)=1$, and so sets $x(m_H)=\bar{\theta}$

When
$$m=m_L$$
, politician believes $b(m_L)=0$, and so sets $x(m_L)=\underline{\theta}$

Step 2: Will the lobby want to tell the truth given these consequences?

- In state $\bar{\theta}$, the lobby prefers $x = \bar{\theta}$ over $x = \underline{\theta}$, so there is no incentive to lie.
- In state $\underline{\theta}$, the lobby prefers a policy larger than $\underline{\theta}$. Perhaps it will want to misreport and claim that $\theta = \overline{\theta}$?
- ⇒ In order for the lobby *not* to misreport, it must prefer $x = \underline{\theta}$ over $x = \overline{\theta}$ when the true state is θ

[†] **Technical:** When we say that a message 'coincides' with the true state, all we mean is that the lobby sends *distinct* messages depending on the state. E.g. it calls out *some* number m_L when the state is $\bar{\theta}$ and some *other* number m_H otherwise. This is all that's required in order for the politician to interpret those messages as assumed above.

Under what conditions can lobbying be informative?

Condition: The lobby must prefer $x=\underline{\theta}$ over $x=\overline{\theta}$ when the true state is $\underline{\theta}$ **Analytically:**

$$-(\underline{\theta} - (\underline{\theta} + \delta))^2 \ge -(\overline{\theta} - (\underline{\theta} + \delta))^2$$

i.e.

$$(\underline{\theta} + \delta) - \underline{\theta} \le \bar{\theta} - (\underline{\theta} + \delta)$$

equivalently

$$\delta \leq \frac{\bar{\theta} - \underline{\theta}}{2}$$

Graphically: The lobby's ideal point when the true state is $\underline{\theta}$, $(\underline{\theta} + \delta)$ must be closer to θ than to $\overline{\theta}$ (blue region below)



This is true if its 'bias' δ is less than 1/2 the distance between $\underline{\theta}$ and $\bar{\theta}$

Result: When there are two states of the world, an 'informative' equilibrium exists only if preferences are not too different.

$$\delta \leq \frac{\bar{\theta} - \underline{\theta}}{2}$$

- Otherwise, politician cannot trust the lobby because it would always 'lie' (e.g. say m_H)
- Then the politician will ignore the lobby and always set $x = \frac{\theta + \bar{\theta}}{2}$.
- This result would not be Pareto efficient! (Why?)

BTW: Even when preferences *are* sufficiently similar, there is always a 'babbling equilibrium'

- lobby reports randomly ('babbles')
- politician ignores the lobby

Three states

- lacksquare $\theta < \theta_M < \bar{\theta}$
- All states equally likely (now this may matter)

Step 1: Suppose lobby truthfully reports in each state. What are the consequences?

■ Three messages, one corresponding to each state

Message
$$m_L$$
 = 'The state is $\underline{\theta}$ ' Message m_M = 'The state is $\underline{\theta}_M$ ' Message m_H = 'The state is $\overline{\theta}$ '

If the politician believes the lobby

Message
$$m_L$$
 induces policy $x = \underline{\theta}$
Message m_M induces policy $x = \overline{\theta}_M$
Message m_H induces policy $x = \overline{\theta}$

Step 2: Will the lobby always want to send these messages? (...)

Consider state $\underline{\theta}$. Will the lobby tell the truth?

- Telling the truth leads to $x = \underline{\theta}$
- There are two ways to lie:
 - report m_M ('The state is θ_M ') $\Rightarrow x = \theta_M$
 - report m_H ('The state is $\bar{\theta}$ ') $\Rightarrow x = \bar{\theta}$
- When the true state is $\underline{\theta}$, the lobby prefers telling truth over reporting m_M if it's ideal point is closer to θ than to θ_M (blue region below)



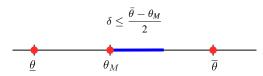
■ This is true if its 'bias' δ is less than 1/2 the distance between $\underline{\theta}$ and θ_M

$$\delta \leq \frac{\theta_M - \underline{\theta}}{2}$$

If this is satisfied, it's easy to see that the lobby would also not want to falsely report m_H.

Consider state θ_M . Will the lobby tell the truth?

- Clearly no incentive to report $\underline{\theta}$. (Why?)
- May want to report $\bar{\theta}$.
- The lobby will prefer to report truthfully if



Notice:

- By adding more states, we get additional conditions on δ .
- These conditions are tougher to satisfy when distinct states are closer together (more similar).
- Making the state space "finer" causes the conditions for a 'fully revealing' equilibrium to become increasingly restrictive
- It follows that fully informative equilibria are unlikely when there are many states "close" to one another.

Partially revealing equilibria

- If δ is larger than $\frac{\bar{\theta}-\theta_M}{2}$ or $\frac{\theta_M-\theta}{2}$, the politician cannot trust the lobby to truthfully reveal each state.
- Suppose instead that the lobby sends only two messages:
 - \blacksquare $m_L =$ 'The state is θ '
 - \blacksquare $m_H =$ 'The state is either θ_M or $\bar{\theta}$ '
- Can these (less 'precise') messages be sent and believed in equilibrium?

Step 1: Suppose that the politician believes these messages

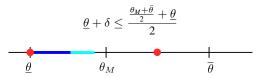
- Message m_L , induces $x(m_L) = \underline{\theta}$
- Message m_H , induces $x(m_H) = \frac{\theta_M + \bar{\theta}}{2}$ (This is where the assumption that states are equally likely comes in. Otherwise, the politician would choose $x(m_H) = E(\theta | \theta \in \{\theta_M, \bar{\theta}\})$. This complication is not substantively interesting.)

Step 2: Will the lobby want to tell the (partial) truth?

- When $\theta = \bar{\theta}$, there is no reason to lie. (Why?)
- Need to consider $\theta=\theta_M$ and $\theta=\underline{\theta}$ (We need to check both cases. There was a mistake on the previous version of the slides here.)

Suppose the true state is $\theta = \underline{\theta}$

- The conjectured equilibrium requires that the lobby sends message m_L .
- Thus, the lobby must prefer $x = \underline{\theta}$ to $x = \frac{\theta_M + \overline{\theta}}{2}$.
- This is true if the lobbies ideal point, $\underline{\theta} + \delta$ is to the left of the middle between the two policies, i.e.



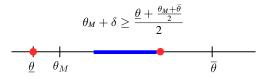
Another way to write this is

$$\delta \leq \frac{\frac{\theta_M + \bar{\theta}}{2} - \underline{\theta}}{2}$$

This condition can be satisfied in cases where the prior condition was not (light blue area in the figure).

Suppose the true state is $\theta = \theta_M$

- The conjectured equilibrium requires that the lobby sends message m_H .
- Thus, the lobby must prefer $x = \frac{\theta_M + \bar{\theta}}{2}$ to $x = \underline{\theta}$.
- This is true if their ideal point, $\theta_M + \delta$ is to the right of the middle between the two policies, i.e.



Another way to write this is

$$\delta \geq rac{rac{ heta_M + ar{ heta}}{2} - \underline{ heta}}{2} - (heta_M - \underline{ heta})$$

■ This lower bound is below the upper bound derived in the previous case. Thus there exist δ satisfying both conditions even when they violate the condition for a fully revealing equilibirum.

Conclusions from the three-state case

- When the state space is 'fine' (multiple 'similar' states are possible), the lobby cannot credibly reveal *precise* information. (E.g. cannot reveal all three states $\underline{\theta}$, θ_M , $\bar{\theta}$)
- Specifically, full information is possible only if the minimum distance between two states is larger than 2δ (the parameter measuring the degree of preference divergence between lobby and policy maker).
- If this is violated, the lobby *could* perhaps give *approximate* information. (E.g. can reveal two ranges $\{\underline{\theta}\}$ and $\{\theta_M, \bar{\theta}\}$)
 - This equilibrium exists if δ satisfies a set of conditions that can be satisfied when the conditions for a fully revealing equilibrium are violated.

Continuous information

- Consider a setting where the state space is continuous.
- Since there is no distance between states, there can be no fully revealing equilibrium.
- Perhaps in such cases the lobby can only reveal 'rough' information?

Example

- Teacher's union informing politician about the cost of building new schools (dollars per square foot).
- Detailed ("continuous") information: \$100, \$101, \$102, ...
- Rough ("ballpark") information: Costs > or < \$70?</p>

Continuous state space

$$\theta \sim U[\underline{\theta}, \bar{\theta}]$$

Exercise: Show that there can be no fully revealing equilibrium. (I.e. no equilibrium where the lobby sends a distinct message for each state, e.g. $m(\theta) = \theta$).

- Suppose that for all θ , lobby sends truthful message $m(\theta) = \theta$
- Politician 'believes' these messages and chooses x(m) = m
- Consider an arbitrary state $\theta \in [\underline{\theta}, \overline{\theta}]$. What message will the lobby *want* to send?

$$m(\theta) = \theta + \delta$$

- This contradicts the initial premise that $m(\theta) = \theta$
- It follows that there can be no fully revealing equilibrium.

Technical detail: For $\theta>\bar{\theta}-\delta$, if the lobby lied as specified, it's report would surprise the politician, as it is inconsistent with his belief that the lobby always tells the truth. So in this case the politician's response is not pinned down by what we've assumed. However this is unimportant, because in order to show that truth telling is not an equilibrium, it's enough to argue that the lobby would want to lie by reporting $m(\theta)=\theta+\delta$ for all $\theta\in [\theta,\bar{\theta}-\delta]$.

Revealing approximate information

- Suppose the lobby only says whether θ is "high" (m_H) or "low" (m_L) .
- Politician interprets

$$m_L$$
 as meaning $\theta \leq \hat{\theta}$, and m_H as meaning $\theta > \hat{\theta}$,

for some $\hat{\theta} \in (\underline{\theta}, \bar{\theta})$

Question: Are there values for $\hat{\theta}$ such that this would constitute an equilibrium?

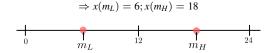
Example: $\theta \sim U[0, 24], \delta = 4$

Thought experiment

■ Suppose that $\hat{\theta} = 12$. I.e. the lobby reveals whether $\theta > \text{or} < 12$.

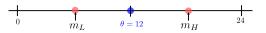


What policies will the politician choose if he trusts these messages?



Thought experiment: $\theta \sim U[0, 24], \, \delta = 4, \, \hat{\theta} = 12, \, x(m_L) = 6, \, x(m_H) = 18$

■ Suppose the true state is $\theta = 12$. What message will the lobby send?



■ What about when $\theta = 11$?

Observe: If the lobby strictly prefers to send message m_H when $\theta = \hat{\theta}$, then it will 'lie' when θ is slightly smaller.

Conclusion: In equilibrium, the lobby must be *indifferent* between messages m_L and m_H when $\theta = \hat{\theta}$.

In our example, this requires

$$(\hat{\theta} + 4) - \frac{\hat{\theta}}{2} \equiv \frac{\hat{\theta} + 24}{2} - (\hat{\theta} + 4),$$

implying

$$\hat{ heta}=4$$

Result: Equilibrium messages must partition the space *unevenly*. The lobby can provide more precise information in "low" states than in "high states". It's message is most informative when *opposing its own bias*.

Multiple lobbies

Next we want to consider the possibility that the politician speaks to multiple lobbies.

Example:

- $\theta \in [0, 24]$
- $\delta_1 = 3$ (Lobby 1 is right-biased)
- $\delta_2 = -3$ (Lobby 1 is left-biased)

Then

■ If only group 1 lobbies, there is a 2-message equilibrium in which the lobby reveals whether $\theta < 6$ or $\theta \ge 6$.



If only group 2 lobbies, there is a 2-message equilibrium in which the lobby reveals whether $\theta < 18$ or $\theta \ge 18$.



Note

- If the policy maker could simply *combine* this information, he could learn whether $\theta < 6, \theta \in [6, 18)$, or $\theta > 18$.
- But: allowing the politician to do this changes the game i.e. it may influence the messages that lobbies want to send.

Game

- 1 Lobbies send messages simultaneously.
- 2 Politician observes both messages and chooses policy.

Let's try to construct an equilibrium in which both lobbies use 2 messages

- Lobby 1 says "high" when $\theta > \hat{\theta}_1$,
- Lobby 2 says "high" when $\theta > \hat{\theta}_2$

Conjecture:

- The left-leaning lobby (Lobby 2) should be less likely to say "high".
- So we suspect $\hat{\theta}_2 > \hat{\theta}_1$



■ Depending on the *combination* of messages the policy maker receives, he will conclude that $\theta \leq \hat{\theta}_1, \theta \in (\hat{\theta}_1, \hat{\theta}_2]$, or $\theta > \hat{\theta}_2$.

- As above, let's look at what happens in states of the world corresponding exactly to the conjectured cutoff values.
- Suppose first that the true state is $\theta = \hat{\theta}_1 < \hat{\theta}_2$
 - Lobby 2's strategy specifies that it says "low"
 - Given this, lobby 1 must be indifferent between both messages
 - If he says "low", politician sets $x = \frac{\hat{\theta}_1}{2}$.
 - If he says "high", politician sets $x = \frac{\hat{\theta}_1 + \hat{\theta}_2}{2}$
 - Lobby 1 will be indifferent if

$$(\hat{\theta}_1 + 3) - \frac{\hat{\theta}_1}{2} = \frac{\hat{\theta}_1 + \hat{\theta}_2}{2} - (\hat{\theta}_1 + 3)$$

This gives us

$$\hat{\theta}_1 = \frac{\hat{\theta}_2}{2} - 6$$

■ The same analysis for lobby 2 (indifference when $\theta = \hat{\theta}_2$) implies

$$\hat{\theta}_2 = \frac{\hat{\theta}_1}{2} + 18$$

Equilibrium

■ Both conditions are simultaneously satisfied if $\hat{\theta}_1 = 4$ and $\hat{\theta}_2 = 20$.



■ Thus, there exists an equilibrium in which Lobby 1 (right leaning) truthfully reveals whether $\theta < 4$ and lobby 2 (left leaning) truthfully reveals whether $\theta > 20$.

Welfare

- Listening to both lobbies improves the politician's expected utility.
- More surprising: The presence of a competing lobby also improves the lobbies' expected utilities. (Why?)

Conclusions from Grossman and Helpman's analysis

- Rational policy makers will trust information provided by a lobby only under special circumstances.
- A lobby can influence a politician only if their interests are not too different (δ small).
- There is a limit to the precision of information that can be sent. I.e. only relatively vague / general statements can be credible.
- The information provided by a lobby is most informative the more it goes against its own ex ante bias.
- All individuals (policy maker and all lobbies) are better off if information is provided by multiple competing groups.

References

(*) MU Ch. 20

OLSON, M. 1971. The logic of collective action. Harvard University Press: Ch. 1&2

VAN BASTELAER, T. 1998. The political economy of food pricing: An extended empirical test of the interest group approach. *Public Choice*, 96: 43–60

TOLLISON, R.D. 1982. Rent seeking: A survey. Kyklos, 35: 575-602.

TULLOCK, G. 1967. The welfare costs of tariffs, monopolies, and theft. Economic Inquiry, 5: 224-232.

GROSSMAN, G. AND E. HELPMAN 2004. Special Interest Politics. MIT Press: Ch. 4&5