Political Economy and the Firm

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Introduction

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- Redoano (2010) uses the menu auction model to study when groups will lobby.
- She also finds that it is the extreme groups which have the greatest incentive to lobby.

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- MMR argue that this rent-seeking and the associated influence costs may be reduced by divesting the weaker divisions.
- Evidence shows that it is usually the less profitable divisions which are divested. The buyer is typically either a management buyout or a firm in a related line of business.
- Sometimes the most high performing division is divested

Individuals

- There is a one dimensional policy decision, for instance to determine the level of provision of a public good. The policy x is chosen from a policy space X.
- There is a set I of $2n$ individuals, divided into two equal sized groups, high agents $H = \{H_1, ..., H_n\}$ and low agents $L = \{L_1, ..., L_n\}$.
- Individual i has a strictly concave utility function $u_i : X \rightarrow \mathbb{R}$.
- Individual i has ideal level of public good provision $x_i^* \in X$.
- Higher numbered individuals from the H-group (resp. L-group) want higher (resp. lower) levels of public good, i.e.

$$x_{H_n}^* > x_{H_{n-1}}^* > ... > x_{H_1}^* > x_{L_1}^* > ... > x_{L_n}^*.$$

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- Individual i will choose to participate if $\Delta_i(\Lambda) > c_i$.
- There is strategic complementarity between groups. However there is free riding within a group, which means this is also partly a game of strategic substitutes.

Examples

Median Voter Rule

- Number individuals so that the ideal points of members of Λ satisfy $x_1 < ... < x_{|\Lambda|}$.
- The chosen outcome $C(\Lambda)$ is the median of $\{x_\ell : \ell \in \Lambda\}$ if $|\Lambda| = 2m + 1$, i.e. $C(\Lambda) = x_{m+1}$.
- $C(\Lambda) = \frac{1}{2}(x_m + x_{m+1})$, if $|\Lambda| = 2m$.

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Menu-Auction Lobbying

- Divisions lobby the CEO to make decisions in their favour.
- The CEO charges as if (s)he is a perfect price discriminator.

Assumptions I

Assumption

Marginal benefit is increasing in k, i.e.

1. *If $H_j, H_\ell \in \Lambda$, with $j > \ell$ then $\Delta_{H_j}(\Lambda) > \Delta_{H_\ell}(\Lambda)$.*
2. *If $L_j, L_\ell \in \Lambda$, with $j > \ell$ then $\Delta_{L_j}(\Lambda) > \Delta_{L_\ell}(\Lambda)$.*

The following assumption says that adding two groups with equal and opposite preferences does not affect the marginal benefit of a third party.

Assumption (Matched Pairs)

Suppose that $H_{\tilde{k}} \notin \Lambda, L_{\tilde{k}} \notin \Lambda, k \neq \tilde{k}$ then
$\Delta_{H_k}(\Lambda) = \Delta_{H_k}(\Lambda \cup H_{\tilde{k}} \cup L_{\tilde{k}})$, *for all $k \neq \tilde{k}$.*

Assumptions II

Assumption

Marginal benefit is greater the more opponents there are. Similarly marginal benefit is higher the fewer people who are on your own side.

1. *if* $L_j \notin \Lambda, H_k \in \Lambda, \Delta_{H_k}(\Lambda \cup L_j) \geqslant \Delta_{H_k}(\Lambda)$;
2. *if* $H_j \notin \Lambda, L_k \in \Lambda, \Delta_{L_k}(\Lambda \cup H_j) \geqslant \Delta_{L_k}(\Lambda)$;
3. *if* $H_j \notin \Lambda, H_k \in \Lambda, \Delta_{H_k}(\Lambda \cup H_j) \leqslant \Delta_{H_k}(\Lambda)$;
4. *if* $L_j \notin \Lambda, L_k \in \Lambda, \Delta_{L_k}(\Lambda \cup L_j) \leqslant \Delta_{L_k}(\Lambda)$.

Assumptions III

Assumption (Higher Rank)

If $\hat{k} > \tilde{k}$ *and* $H_{\tilde{k}} \in \Lambda$, *and* $H_{\hat{k}} \notin \Lambda$, *and* $H_k, L_k \in \Lambda$, *then* $\Delta_{H_k}(\Lambda) \geqslant \Delta_{H_k}((\Lambda \backslash H_{\tilde{k}}) \cup H_{\hat{k}})$ *and* $\Delta_{L_k}(\Lambda) \leqslant \Delta_{L_k}((\Lambda \backslash H_{\tilde{k}}) \cup H_{\hat{k}})$.

In a lobbying game, a higher ranked individual would have a more benefit from public goods and so would lobby harder. Under the median voter rule a higher ranked individual joining would cause the median to shift by more.

Assumption (Replacement)

Assume that $\hat{k} > \tilde{k}$. *If* Λ *is such that* $H_{\hat{k}} \notin \Lambda$ *and* $H_{\tilde{k}} \in \Lambda$ *then* $\Delta_{H_{\hat{k}}}((\Lambda \backslash H_{\tilde{k}}) \cup H_{\hat{k}}) > \Delta_{H_{\tilde{k}}}(\Lambda)$.

Existence of Equilibrium

Theorem

Consider a symmetric lobbying game Γ, *which satisfies Assumptions 2 (opposite pairs), and 3 (MB-opponents). Then* Γ *has a symmetric equilibrium in pure strategies.*

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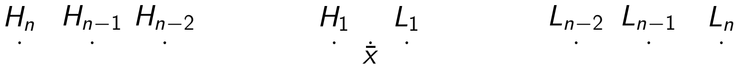
- In equilibrium, the k^* individuals with the most extreme preferences from the H-group and the k^* individuals with the most extreme preferences from the L-group, participate in the political process.
  - Existence follows from Nash's theorem. This result also characterises the equilibrium and establishes existence in pure strategies.


H_n
H_{n-1}
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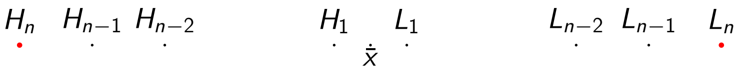
H_1
$\bar{x}$
L_1
L_{n-2}
L_{n-1}
L_n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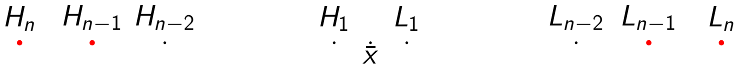
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Theorem

Consider a symmetric lobbying game Γ*, which satisfies Assumptions 1, 2, 3, 4, and 5. Then the size of largest and smallest equilibrium lobbies are a decreasing function of the cost of lobbying* c.

Uniqueness

In general, we would not expect the equilibria to be unique due to strategic complementarity.

Assumption 3 (MB-opponents) implies $\Delta_{H_n}(\varnothing) < \Delta_{H_n}(H_n, L_n)$.

Thus if the cost of voting, c, is such that

$$\Delta_{H_n}(\varnothing) < c < \Delta_{H_n}(H_n, L_n)$$

there will be two equilibria one where nobody votes and one where both H_n and L_n vote.

Characterisation of Equilibrium

The following result demonstrates that any equilibrium lobby must contain an equal number of L and H individuals.

Definition

A lobby Λ is balanced if it contains an equal number of L and H individuals.

Proposition

If Γ is a symmetric lobbying game, which satisfies Assumption 3 (MB-opponents), then an equilibrium lobby must be balanced.

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Proposition

Assume that H's face zero cost of voting. Provided the cost of voting for the L's, $c_L \geqslant \tilde{c} = v_{L_n}\left(x^*_{H_\rho} - x_{L_n}\right) - v_{L_n}\left(m_H - x_{L_n}\right)$ *then in equilibrium:*

1. *none of the L-group votes,*
2. *the outcome is the median of the H-group,* m_H.


H_{2m}
H_{m+1}
$\bar{x}$
H_m
H_1
L_1
L_2
L_n


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- Government policy should aim to keep the costs of participation equal for all.
- This arises because the costs of voting are correlated with differences in taste.
- On-line voting may be better if it makes the opportunity cost of voting more equal.

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- Bjelke-Petersen's dominance of power was achieved by biasing the electoral rules in his favour. The system favoured rural voters who tended to vote for the National party.
- However any bias was not great. Australia was viewed as being a full member of the group of western democracies during this time.

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- Rent seeking within organisations. Meyer, Milgrom, and Roberts (1992) consider a multi-division firm. Then the divisions may have an incentive to lobby the centre for transfers. It will be the extreme, i.e. the best and worst performing divisions, which have the greatest incentive to lobby the centre.

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- Suppose a firm incurs influence costs
  - Costs may be reduced by divesting the extreme division.
  - Costs may also be reduced by merging with a division with opposite preferences thus moving the overall political outcome to a more centrist position.

Applications

- Voting when there is a cost to voting. Policies differ in one dimension, e.g. left-right. As Bulkley and Myles (2001) show, in equilibrium $2k$ individuals will vote. The k with the most extreme left wing views and the k with the most extreme right wing views.

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- The two types could be men and women. Suppose they have to pay a cost to meet, e.g. by paying for a dating agency/website or by paying to go to the disco. Then the k men most keen to find a partner go to the dating agency, (similarly for the women).

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- Volunteer armies. Consider community conflict as in Northern Ireland. Then it is the extremists on both sides who join the paramilitaries.

Conclusion

- A common feature of voting and lobbying is that the extremes have the greatest incentive to participate.
- Relatively small differences in participation costs can have large effects on outcomes.

Directions for Future Research.

- Extend to a larger more general models of the political process,e.g. lobbying, bargaining etc.
- Explore implications for internal decision-making within firms.
- How do corporate control events such as mergers, takeovers and divestitures affect the internal politics of the firm?

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