Net Campaign Contributions, Agricultural Interests, and Votes on Liberalizing Trade with China

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Introduction

- There is an extensive literature exploring the influence of interest group contributions on votes on international trade policy.
- It is well-known that agricultural interests are important constituency in international trade policy, but most studies of trade bills consider only labor/corporate interests.
- We consider the vote on one of the most important trade bills in recent history: the PNTR with China decision, highlighting the role of agricultural/agribusiness contributions.
- We take a slightly different tack from most papers, working in terms of contributions to legislators net of those given to electoral rivals.
- We find that agribusiness contributions have a disproportionate effect, and look for possible explanations in the contribution patterns.

Political Economy Framework

- The political economy framework that we adopt here draws on the approach of Baldwin and Magee (2000), which in turn derives much of its theoretical foundation from Grossman and Helpman (1994).
- The members of the US Congress represent the supply side of the market. They are assumed to maximize their probabilities of re-election, for which they need to balance financial considerations with the interests of their constituents/their own values.
- On the demand side, lobby groups attempt to influence legislators to take positions that match their interests. Political contributions may affect voting behavior either directly with interest groups 'buying' votes, or indirectly through increased access and/or strategically provided information.
- Contributors allocate funds to legislative candidates on the basis of ideological match, probability of election, and influence in the legislative process.

Voting Behavior

- In empirical models, the voting behavior is usually formalized using the random utility approach.
- Suppose a legislator with characteristics $\mathbf{X}$ has a utility of $\mathbf{X}\boldsymbol{\beta}_1 + \varepsilon_1$ if they vote for PNTR and $\mathbf{X}\boldsymbol{\beta}_0 + \varepsilon_0$ if they vote against.
- $\mathbf{X}$ consists of characteristics meant to capture the legislator's base position, and contributions from interest groups that pull them away from that base.
- They will vote for PNTR only if $\mathbf{X}(\boldsymbol{\beta}_1 - \boldsymbol{\beta}_0) > \varepsilon_0 - \varepsilon_1$.
- The probability that the representative votes 'yes' is then given by the cumulative density of $\varepsilon_0 - \varepsilon_1$ to $\mathbf{X}(\boldsymbol{\beta}_1 - \boldsymbol{\beta}_0)$.
- Depending on the distribution from which the errors are drawn, we have the probit or logit model. This could be estimated directly. **But. . .**

Endogeneity Problem

- **. . . the contribution variables are endogenous.**
- Even if the model is recursive this is problematic if there is the potential for errors in variables or some other cause of correlation between the contributions and the error (if, for example, some unobserved characteristic influences both a legislator's vote and the contributions they receive).
- The result is bias (Yatchew and Griliches, 1985).
- The usual solution is usually to use one of a number of IV approaches.

Empirical Model

- We express the various net payments from PACs to the legislators as functions of the characteristics of the race, and of the net outlays of the other PAC groups. We split contributions into three groups (A)griculture, (L)abor and (C)orporations. Hence:

$$
\begin{aligned}
P(Y = 1|\mathbf{X}) &= \mathbf{F}(C_L\beta_L + C_C\beta_C + C_A\beta_A + \mathbf{M}\boldsymbol{\beta}_\mathbf{M}) \\
C_L &= \mathbf{Z_L}\boldsymbol{\delta}_L + \gamma_L C_C + \theta_L C_A + \varepsilon_L \\
C_C &= \mathbf{Z_C}\boldsymbol{\delta}_C + \gamma_C C_L + \theta_C C_A + \varepsilon_B \\
C_A &= \mathbf{Z_A}\boldsymbol{\delta}_A + \gamma_A C_C + \theta_A C_L + \varepsilon_A
\end{aligned}
$$

  where C_i is the net contribution from PAC group i to the legislator, $\boldsymbol{\beta}_\mathbf{M}$ is a vector of coefficients associated with the variables in $\mathbf{X}$ that attempt to capture the base position, $\mathbf{Z_i}$ is a vector of legislator and electoral race characteristics, and the errors ε_i capture any unobserved influencing factors.

Estimation Procedure

- Note that the model is recursive - net contributions from the various groups are assumed to influence each other, but there is no reverse causality between the vote and the contributions.
- This suggests that we can treat the reduced forms of the contributions equations as instrument vectors for the contributions in the vote equations, which can then be estimated using a variety of limited information techniques (2SPLS, 2SCML, AGLS) or via ML.
- Standard errors in 2-stage procedures can be bootstrapped.
- If required, the structural parameters of the contributions equations can then be recovered using either 2SLS or 3SLS.

Data

- We obtained contribution data from the FEC. The files track contributions from roughly 10,000 PAC groups to 2,000 candidates in the 1998 House elections.
- Mapped PAC groups into agricultural/agribusiness categories using the definition of the Center for Responsive Politics (includes primary agriculture, processing and distribution).
- We constructed vectors of net contributions to the legislators using all other rivals in a congressional race (but our results are robust to defining relative to closest rival).
- Other sources of data include the 2005 Census, the Department of Commerce, and the Survey of Manufacturing (various constituency characteristics), and the Almanac of American Politics and Congressional Record (various legislator characteristics).

Preliminaries

- Both the voting and contribution equations are identified. ✓
- Tests for weak instruments. ✓
- Tests for instrument exogeneity (wrt vote and contribution subsystems). ✓
- Check that net contributions really are endogenous (in both the voting equation and the contributions). ✓

Estimated Marginal Effects

	Probit		2SCML	
Republican	0.429	***	0.013	
	(0.117)		(0.100)	
Net Labor Contributions	-0.001		-0.004	***
	(0.001)		(0.001)	
Net Agribusiness Contributions	0.006	*	0.009	**
	(0.002)		(0.003)	
Net Corporate Contributions	0.001		0.002	*
	(0.001)		(0.001)	
Education	0.003		0.002	
	(0.005)		(0.003)	
Conservative	-0.005	.	-0.007	***
	(0.003)		(0.002)	
Chinese	0.012		-0.005	
	(0.026)		(0.016)	
Unemployment	-0.073		-0.059	*
	(0.046)		(0.026)	
Exports	0.141	*	0.064	.
	(0.051)		(0.034)	
Textile Employment	-0.034	*	-0.011	.
	(0.010)		(0.006)	
Union	-0.016	.	-0.002	
	(0.009)		(0.005)	
Terms	-0.022	.	-0.004	
	(0.012)		(0.006)	

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Counterfactual Predictions of the Model (2SCML)

Number of Votes	434	
Actual Votes in Favor	237	
Required Votes to Pass	218	
Votes Predicted in Favor	236	(214-255)
Votes Predicted without Labor Contributions	328	(308-400)
Votes Predicted without Agribusiness Contributions	156	(88-196)
Votes Predicted without Corporate Contributions	154	(55-223)
Votes Predicted without All Contributions	171	(60-252)

- An extra 'no' vote cost labor approximately $399,000.
- An extra 'yes' vote cost corporations approximately $445,000.
- An extra 'yes' vote cost agribusiness interests only $130,000.
- Only in the agribusiness case does the required number of votes fall outside a 95 percent CI.

Explaining the Impact of Agribusiness on Trade Policy

- Our evidence suggests that the agricultural lobby is an active buyer in the trade policy market. Not only that, but it is a buyer that seems to be able to achieve extraordinary value for money. Key question is then: What factors explain the disproportional influence of agricultural/agribusiness PACs?
- As a first step, we look for differences in the contribution patterns.
- Next, we recover the parameters of the structural net contribution equations (via 3SLS) to see if differences in targeting strategies can be seen.
- Finally, we reconsider the public record information to indirectly assess how agricultural interest group activities influenced the legislators.

Estimated Net Labor Contributions Equation

- Affiliation with the Republican party has a negative effect.
- Targeting of incumbents.
- Some evidence for targeting close races.
- Labor group ratings/union membership and unemployment also important factors.

Intercept	-6.540	
	(26.892)	
Republican	-57.319	***
	(14.158)	
Terms	0.128	
	(1.591)	
Margin	-0.290	.
	(0.154)	
Incumbency	48.654	*
	(19.180)	
Independent Finance	-0.523	
	(0.574)	
Rival Independent Finance	0.071	
	(0.057)	
Net Corporate Contributions	-0.061	
	(0.237)	
Net Agribusiness Contributions	0.268	
	(0.265)	
AFL Rating	1.290	***
	(0.298)	
Labor Committee	14.815	
	(11.588)	
Union	1.623	**
	(0.583)	
Unemployment	-10.804	***
	(3.097)	

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Estimated Net Corporate Contributions Equation

- Again a negative Republican effect.
- Very strong incumbency effect.
- Strong targeting of close races.
- Strong targeting of seniority and committee members.
- Interest group rating important again.
- Negative effect of labor contributions.

Intercept	-13.814	
	(18.778)	
Republican	-46.367	*
	(19.316)	
Terms	5.478	***
	(0.952)	
Margin	-0.495	***
	(0.134)	
Incumbency	78.499	***
	(16.691)	
Independent Finance	-0.123	
	(0.569)	
Rival Independent Finance	-0.064	
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Net Agribusiness Contributions	-0.075	
	(0.283)	
Net Labor Contributions	-0.436	***
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Chamber of Commerce Rating	0.701	**
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Estimated Net Agribusiness Contributions Equation

- No evidence that incumbency matters.
- No evidence for targeting close races.
- Seniority has a significant **negative** effect.
- Interest group rating remains important, and committee membership is very important.

Intercept	-6.421	
	(5.390)	
Republican	-9.253	.
	(5.567)	
Terms	-0.951	*
	(0.470)	
Margin	0.032	
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Incumbency	9.053	
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Robustness Checks

- Results robust to alternative specification of net contributions.
- Estimating using gross contributions and a standard probit-tobit setup using the same set of explanatory factors gives a smaller agribusiness impact and a larger corporate impact, along with a substantially degraded ability to predict the outcome.

Conclusions

- Not controlling for endogeneity of contributions leads to a very misleading picture of the influence of PACs in this case.
- Very strong evidence of agriculture/agribusiness influencing US trade policy voting behavior (pro-free trade in this case, probably not in others . . .)
- The degree of influence is much higher than other groups, despite much smaller financial commitments.
- Contributions seem to be targeted quite differently: Small amounts to many people, targeting junior legislators rather than seniors/incumbents, as well as targeting committee members.

Future Work

- Determine if the strength of the agriculture/agribusiness effect on trade policy was unique to this particular bill, or if it holds for other recent trade policy votes too (numerous recent FTAs for example).