

Industry Segmentation and the Market for Protection: Evidence from Oil

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Firm heterogeneity and demands for protection

- ▶ Political cleavages on foreign economic policy are often construed on industry lines
- ▶ But firms within are heterogeneous: size, productivity, vertical and international integration
- ▶ We expect firm heterogeneity leads to differences in policy preferences, and intensity of those preferences
- ▶ Explore when heterogeneity matters

Why oil is useful

- ▶ Two dimensions of producer heterogeneity: degree of vertical specialization and multinationality
 - ▶ Exxon - vertically integrated multinational producer
 - ▶ IPAA - domestic producer association
 - ▶ IRA - domestic refiner association
- ▶ Consumer characteristics also vary
 - ▶ American Trucking Association - concentrated consumer
 - ▶ residential users - non-concentrated consumers

Why oil is useful

- ▶ Policy instruments with different distributional effects
 - ▶ excise tax on domestic crude oil production
 - ▶ quota/tariff on crude oil or oil product imports
 - ▶ price controls
 - ▶ etc.
- ▶ Information on firm preferences towards different instruments
- ▶ Information on voting behavior towards different instruments

Two instruments

- ▶ Excise tax on domestic oil produced
 - ▶ imposed on domestic oil 1980-1988
 - ▶ concurrent with price liberalization
 - ▶ weighted towards integrated, multinational firms
- ▶ Oil and product import tariffs
 - ▶ tariff on crude oil debated in Congress
 - ▶ amendment proposed to strip presidential ability to impose tariff on product imports under Section 232 of 1962 Trade Expansion Act

Data - firms' policy preferences

- ▶ Congressional hearings between 1979 and 1987
 - ▶ oil & gas hearings in Policy Agendas database
 - ▶ hearings focused on tariff or excise tax
 - ▶ import tariff: 8 hearings, 133 statements
 - ▶ excise tax: 7 hearings, 82 statements
- ▶ Two types of data coded
 - ▶ firm/association characteristics
 - ▶ revealed preference towards instrument

Excise tax on domestically produced oil - expectations

	Domestic	Multinational	Integrated
Producer	Strongly Oppose	Support	Mixed
Refiner	Indifferent		Weakly Support
Marketer & Consumer	Indifferent		

Oil import tariff - expectations

	Domestic	Multinational	Integrated
Producer	Strongly Support	Strongly Oppose	Mixed
Refiner	Oppose		Weakly Oppose
Marketer & Consumer	Strongly Oppose		

Support for excise tariff

Category	Type	Position
Producer	Domestic	0.00 (33)
Producer	Integrated	0.30 (10)
Refiner	Domestic	No Entry
Marketer & Consumer	Domestic	0.11 (9)

Note: Ratio of total entries supporting the imposition of an excise tax; total number of entries in brackets.

Support for oil import tariff

Category	Type	Position
Producer	Domestic	0.85 (20)
Producer	Integrated	0.50 (4)
Refiner	Domestic	0.43 (7)
Marketer & Consumer	Domestic	0.00 (92)

Note: Ratio of total entries supporting the imposition of an excise tax; total number of entries in brackets.

Probit analysis: conference report on excise tax

	(1)	(2)	(3)	(4)	(5)	(6)
Democrat	1.606*** (0.347)	1.399*** (0.325)	1.379*** (0.301)	1.588*** (0.343)	1.386*** (0.301)	1.480*** (0.315)
Ln Oil Production	-0.291*** (0.078)					
Ln Total Consumption	0.282 (0.173)	0.189 (0.163)	0.155 (0.157)	0.321* (0.174)		
Oil Employment Ratio		-0.408*** (0.116)				
Integrated Firms Producing in State Ratio			-2.266** (1.033)	-1.415 (1.016)	-2.144** (1.005)	-2.190** (1.105)
Presence of Independent Producers			-0.074 (0.336)	0.159 (0.378)	-0.042 (0.338)	0.009 (0.355)
Ln Independent Refining Capacity				-0.108** (0.043)		
Ln Concentrated Consumption					0.085 (0.152)	
Ln Non-Concentrated Consumption						0.478*** (0.137)
Constant	-2.754 (1.877)	-2.032 (1.832)	-1.702 (1.726)	-2.966* (1.785)	-0.931 (1.641)	-4.242*** (1.242)
Observations	97	92	97	97	97	97

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Probit analysis: repeal tariff, fee and quota authority

	(1)	(2)	(3)	(4)	(5)	(6)
Democrat	-0.073 (0.306)	-0.097 (0.317)	-0.288 (0.329)	-0.286 (0.338)	-0.292 (0.326)	-0.159 (0.374)
Ln Oil Production	-0.113*** (0.027)					
Ln Total Consumption	0.316* (0.170)	0.245 (0.181)	0.369* (0.205)	0.371* (0.223)		
Oil Employment Ratio		-1.457*** (0.489)				
Integrated Firms Producing in State Ratio			-0.071*** (0.026)	-0.071** (0.031)	-0.071*** (0.026)	-0.048** (0.020)
Presence of Independent Producers			-0.977*** (0.365)	-0.975*** (0.373)	-0.867** (0.371)	-1.084** (0.421)
Ln Independent Refining Capacity				-0.001 (0.036)		
Ln Concentrated Consumption					0.214 (0.202)	
Ln Non-Concentrated Consumption						0.783*** (0.192)
Constant	-3.733* (1.923)	-2.981 (2.065)	-4.144* (2.343)	-4.171* (2.497)	-2.378 (2.249)	-4.792 (2.038)
Observations	100	100	100	100	100	100

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Discussion

- ▶ Consumers vs. producers and lobbying competition
- ▶ Producer heterogeneity matters - sometimes
- ▶ Next steps
 - ▶ improve producer measures
 - ▶ extend coverage of policy instruments

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Thank you!