Lobbying Activity and the Outcome of Cartel Enforcement

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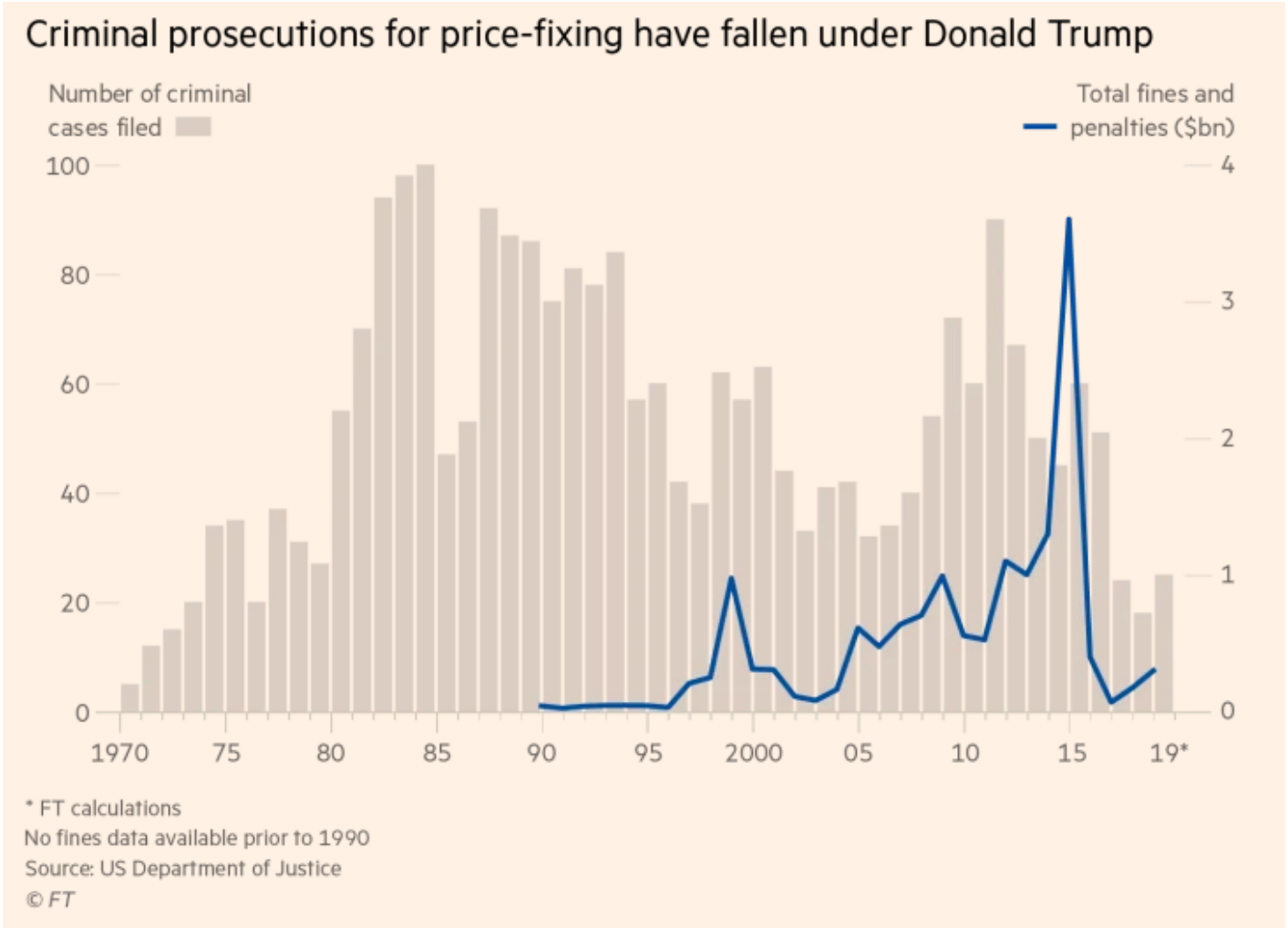

Figure: DoJ antitrust penalties[1]

[1] *Financial Times, December 05, 2019*

Cartel sanction trends

- During Barak Obama's second president term (2013-2016)[2] 78 firms have been sanctioned by the US antitrust authorities for a total amount of $6,299M.
- 37 firms for a total amount of $1,133M have been charged during Donald Trump's president term (2017- 2020).[3]

[2](Shughart II and Thomas, 2013): "During his presidential campaign, Sen. Barack Obama criticized sharply the lax antitrust law enforcement record of the George W. Bush administration. "

[3]https://www.justice.gov/atr/criminal-enforcement-fine-and-jail-charts.

The New York Times

Tech Giants Amass a Lobbying Army for an Epic Washington Battle

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- *New York Times, June 5, 2019.*

Lobbying activity trends

- From 2010 to 2018 the big four tech companies (GAFA) had an average increase of 903% in lobbying expenditures[5]
  - Facebook' s lobbying activity: \$130,000 (2010) and \$3.3M (2018) = + 2438%
  - Apple' s lobbying activity: \$560,000 (2010) and \$2.2M (2018) = + 282%
  - Google' s lobbying activity: \$1.3M (2010) and \$5.9M (2018) = + 347%
  - Amazon' s lobbying activity: \$540,000 (2010) and \$3.5M (2018) = + 546%

[5] *Open Secret*: https://www.opensecrets.org/.

Contribution

Facts:

- ↑ Lobbying activities
- ↓ US Antitrust penalties

↪ Research question: **Do lobbying expenditures impact the US antitrust enforcement outcome?**

↪ Empirical strategy: Endogeneity is tackled by a 2SLS IV procedure.

↪ Result: **Lobbying expenditures (1% change) have a statistically significant effect (-0.083% change) on the US antitrust sanction.**

Literature review

Political connections and regulatory agencies' decisions

- Lobbying banks and regulatory enforcement actions (Lambert, 2018)
- Lobbying firms and M&A review outcome (Fidrmuc and Zhang, 2018)
- Lobbying firms and the action of the Security Exchange Commission (Correia, 2014)

Cartel sanction's determinants

- Determinants of the US antitrust sanction (firm level) (Connor and Miller, 2013)
- Determinants of the US antitrust sanction (cartel level) (Connor and Bolotova, 2006)
- Determinants of cartel overcharge (Bolotova, 2009)

Tested hypothesis

$$Sanction_{it} = \beta Lobby_{it-1} + f(Controls) + \varepsilon_{it} \quad (1)$$

Hypothesis	Definition	Expected effect
H1	Lobbying expenditures impact the antitrust sanction	$\beta < 0$

Facts and theories that support this hypothesis:

- ↪ Division' s discretionary power
- ↪ Legislators influence regulatory agencies
- ↪ Private interests influence legislators

Theoretical determinants of the sanction

- US Sentencing Guidelines promulgate detailed calculations of the corporate sanction:

  - 20% of the volume of affected sales
  - multiplied by a culpability score ranged between 0,75 and 4[6]
  - Final sanction is between 15% and 80% of the volume of affected sales

- Corporate leniency program

- Plea bargaining – Plea Bargaining is a black box for public eyes (Connor and Miller, 2013)

[6] Active effective compliance and ethics programs, cooperation (mitigating factors), recidivism (aggravating factors)

Theories on regulation capture

Legislators influence regulatory agencies

- Budgetary decisions (Weingast and Moran, 1983)
- Bureaucrats' career (Lindsay, 1976)
- Appointment decision for the head of Antitrust Division (Weingast, 1984)

Private interests influence legislators / regulators

- Legislators' districts (Faith et al., 1982)
- Asymmetries of information (Laffont and Tirole, 1991)
- The previous Division's Assistant Attorney General worked for lobbying firms during 10 years before his nomination

Data

- Data on cartels (1992-2011): Private International Cartel (PIC) data base (Connor, 2016)
- Data on lobbying activities (1998-2019): Center for Responsive Politics[7]
- Collected data from PIC: 504 firms in 125 US cartels
- Number of observations (by firms): 121 (1998-2011)
- Controls: firm's cartel share, size of the cartel, other penalties, country, time, industry (Connor and Miller, 2013)
- 2 samples: only *positive sanctions* (Connor and Miller, 2013) and *all sanctions*.

[7] https://www.opensecrets.org/federal-lobbying

Endogeneity issue

Endogeneity: Self selection $\hookrightarrow$ *2SLS*

$$\underline{First - step} : Lobby_{it} = \alpha Z_{it} + \eta \overline{D}_i + \beta_i X_i + \mu_{it} \quad (2)$$

$$\underline{Second - step} : Sanction_{it} = \zeta \widehat{Lobby}_{it-1} + \beta_i X_i + \varepsilon_{it} \quad (3)$$

Instrument/ed	Definition	Expected effect
Z_{it}	Industry average amount of lobby minus $Lobby_{it}$	$\alpha > 0$
$\overline{D}_i$	Min distance Wash-Lon-Tok	$\eta > 0$
$\widehat{Lobby}_{it-1}$	Latent variable	$\zeta < 0$

Instruments - relevance and exclusion

(1) *Industry average lobbying minus* $Lobby_{it-1}$:

- Relevance $E(Lobby_{it} | Z_{it}) \neq E(Lobby_{it})$: *Sector of the firm is correlated with lobbying expenditures (Kim, 2011)*
- Exclusion $Z_{it} \perp\!\!\!\perp \varepsilon_{it}$: *Base of the sanction is determined on the volume of affected sales (per product not per industry)*

(2) Minimum distance from financial centers:

- Relevance $E(Lobby_{it} | \overline{D}_i) \neq E(Lobby_{it})$: *Firms far from financial centers have to make more efforts to politically influence the the US competition authority (Petersen and Rajan, 2002)*
- Exclusion $\overline{D}_i \perp\!\!\!\perp \varepsilon_{it}$: *Firms headquarter is predetermined*

Model	Full & C.	Full	Usf > 0 & C.	Usf > 0
	I	II	I	II
			Stage 1	
ln(**Lobby**$_{t-1}$)				
Instrumental Variables				
ln(Distance Min(Lon-NY-Tok))	0,43***(0,15)[8]	0,42***(0,15)	1,04*** (0,39)	0,84**(0,34)
ln(Mean Indus Lobbying$_{t-1}$)	5,61***(0,87)	5,43***(0,86)	6,92*** (1,44)	6,90*(1,39)
Controls	Yes	No	Yes	No
Cragg-Donald Wald F stat	21,68	22,07	12,03	12,03
			Stage 2	
ln(**US Sanction**)				
Firm Lobbying				
ln($\widehat{Lobby}_{t-1}$)	-0,073**(0,034)	-0,071**(0,033)	-0,084*** (0,019)	-0,043*(0,02)
Controls	Yes	No	Yes	No
R^2	0,59	0,38	0,91	0,79
Cragg-Donald Wald F stat	19.570	18.732	10.981	11.517
Overidentification test (p-value)	0.872	0.637	0.853	0.257
Number of observations	121	121	51	51

[8] *p-value<0.01***, p-value<0.05**, p-value<0.1**

Results

- Lobbying expenditures (1% change) have a statistically significant effect (-0.083% change) on the US antitrust sanction.

- For a median firm, in terms of penalty and lobbying, this result translates into a penalty decrease of $7.35 for $1 on lobby investment, which is equivalent to 735% return on lobbying.

Conclusion

- Do lobbying expenditures impact the US antitrust enforcement outcome?
- PIC and CRP data base
- $2SLS$ IV procedure
- Lobbying expenditures have a statistically significant marginal negative effect on the US antitrust sanction
- Implications: *sanction efficiency* and *cartel stability*

Thank you!

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Descriptive data

Unit	Variables	Sum	Mean	Median	SD	Max	Min
US$M	usfine	6.019	29,80	0	98,39	1.000	0
US$M	lobby_{t-1}	331,84	1,42	1,00	4,92	67,00	0
US$M	asus	23.325	171,51	23	395,60	2.500	0
number	n	2.256	9,28	6	7,54	32	1
US$M	othpen	13.605	55,99	6,7	129,07	901,52	0
months	prison	593	2,48	0	10,00	84	0
number	duration	19.882,35	81,82	62,58	60,76	360	0
US$M	mlobbindus_{t-1}	155,92	0,67	0,43	0,61	5,10	0,09
meters	distance	437.449.258	1.815.142	777.446	1.923.371	5.300.000	0

Other covariates

Model	Full & C.	Full	Usf > 0 & C.	Usf > 0
	I	II	I	II
			Stage 2	
US Sanction				
Proxy for size in the cartel				
LN(AS_{us})	0,33***(0,089)	0,25***(0,069)	0,72***(0,078)	0,62***(0,11)
Detection Probability				
Bidrig	-0,12 (0,81)	-0,68 (0,62)	1,10***(0,39)	0,78 (0,57)
Probedum	-1,89***(0,69)	-1,97***(0,61)	-1,52***(0,33)	-1,11**(0,45)
N (cartelists)	-0,067 (0,07)	-0,03 (0,04)	-0,13***(0,05)	-0,01 (0,05)
Other Penalties				
Othpen	0,01***(0)	0,01***(0)	0,01***(0)	0,01***(0)
Othpen2	0**(0)	0 (0)	0**(0)	0***(0)
Prison	0,04***(0,01)	0,04***(0,01)	-0,02**(0)	-0,01 (0,01)
Controls				
Bush 1	0,55 (0,39)	0,30 (0,36)	1,58***(0,31)	0,72*(0,39)
Bush 2	0,34 (0,38)	0,19 (0,38)	2,03***(0,34)	0,71*(0,39)
LN(duration)	0,13 (0,31)	0,35 (0,28)	-0,75***(0,19)	-0,49*(0,26)

Definitions

Variable	Definition
US fine	The sanction imposed by the US Antitrust Division
AS us	The volume of US affected sales for each firm in the cartel
Bidrig	Equal 1 if bid-rigging cartel
Probedum	Equal 1 if enforcement process occurs
n	Number of members in the cartel
othpen	Other panalties (from other countries or private suits)
prison	Months of prison time assigned to cartel executives
bush1	Equal 1 if the fine was imposed between 2001-2004
bush2	Equal 1 if the fine was imposed between 2005-2009
duration	Cartel duration
mindustrytminus1	Mean of lobbying expenditures per industry minus the amount of lobby spend by the cartel member
minDistance	Minimum distance between cartelist' s headquarter and three of major financial centers
agri	Equal 1 if Agricultural industry
commu	Equal 1 if Communication and Media industry
constru	Equal 1 if Construction industry
energy	Equal 1 if Energy industry
finance	Equal 1 if Finance industry
health	Equal 1 if Health industry
business	Equal 1 if Business industry
transport	Equal 1 if Transport industry