Naughty Firms, Noisy Disclosure

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Research question

Abstract-level question

- How does product market collusion affect firm financial disclosure?

More specific

- In response to increases in the costs of explicit collusion, do firms provide product market disclosures that facilitate tacit collusion?

Some initial thoughts

Multiple-audience disclosure decision

- Audiences
  - Capital market
  - Competitors
  - Customers
  - Regulators
  - Anti-trust authorities
- Competitor-related disclosure/nondisclosure explanations
  - Proprietary costs
  - Deter entry
  - Coordination
- What is the equilibrium?

What's the economic experiment? – I

In response to increases in the costs of explicit collusion...

- Explicit collusion
  - Situation where firms communicate directly with each other
- Costs increase
  - Countries pass leniency laws, which facilitate antitrust enforcement
- Exogenous to US firm environment
  - *Foreign Leniency* measures non-US antitrust enforcement capability (country-weighted) for an industry in a given year

What's the economic experiment? – II

...do firms provide product market disclosures that facilitate tacit collusion?

- Do firms provide product market disclosures?
  - Material contracts with customers
  - Major customer identity
  - Product market strategy during earnings conference calls
- Do disclosures facilitate tacit collusion?
  - Tacit collusion: situation where firms do not communicate privately to exchange information
- Are disclosures a response to increased costs of explicit collusion?

Product market disclosures

My focus: material contracts with customers

What information is in these disclosures?

- Authors keep only the contracts related to product sales
- "Transaction prices, transaction volumes, product quality"
  - Appendix examples suggest that this information could be used to coordinate with rivals
  - How representative are these examples? What information is typically redacted? More information, please!

Test variables

- *Redacted Contracts* = 1 if firm requests confidential treatment of at least one material sales contract that year
- *%Redacted Contracts* = ratio of # of requests for confidential treatment to total # of one material sales contract that year

Empirical implementation

Hypothesized economic story

- Firms use disclosures to communicate pricing and quantity information to rivals when direct communication becomes costlier
- Expect more disclosure after event
- Facilitates tacit collusion

The experiment

- Observability
  - What do the authors observe?
    - Material sales contracts in 10-K
    - Given a contract, whether information was retracted
  - Unobserved: material contracts the firm deems not material
- Disclosure measure
  - Disclosure: *material contract disclosed and not retracted*
  - No disclosure: *material contract disclosed and retracted*

Questions/comments

- "More disclosure" here means a material contract is no longer redacted
  - Asks a lot of a relatively rare occurrence (to show a change in disclosure, there must be a redaction at some point)
- Is there an implicit assumption that information was redacted before leniency laws?
  - Which firms disclose material sales contracts and request confidential treatment?
  - Is there a way to study "new" disclosers?
- Does disclosure facilitate explicit collusion too?
  - Cartels use public disclosure to monitor compliance

To think about

- What is the pre-leniency equilibrium, and why?
    - Disclose material sales contracts
        - Enforce explicit collusion?
        - Legal liability?
        - Capital market reasons?
    - Disclose and redact
        - Proprietary costs?
    - Do not disclose existing material sales contracts
        - Proprietary costs?
    - Do not disclose; no material sales contracts
- What costs/benefits change post-leniency?
- What is observable to the researcher?

Complications?

Potential complications

- Instead of redacting, firms don't disclose existence
- Explicit colluders already disclose pricing and quantity data
- Increase disclosure for some other reason
  - Tests using references to competition in 10-K intended to rule this out
  - Footnote 13: "...we do not necessarily claim that firms collude around the product prices revealed in these particular contracts."
  - This worries me – the more detached the disclosure increase is from specific product information, the more I worry about alternative explanations

Back to the choice to redact...

Which firms request confidential treatment?

- More disclosure = less redaction
- We cannot observe an increase in this disclosure measure if a firm did not previously redact information
- Understanding which firms redact is important

Profitability test (Figure 1)

- Compares profit margins of firms with decreasing redaction to those with non-decreasing redaction (pre-/post-leniency)
- But firms can only decrease redaction if they previously redact
- Does it make sense to look at individual firms?
  - Tacit collusion benefits other firms in the industry, even if they do not decrease redaction

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- This idea is slick!
- Thomas's response: "[slick] seems to be a positive word, but could you tell me what this means?"
- Definition of slick from the urban dictionary: cool, original, something (a task etc.) that has been well done

Material sales contracts and cartel agreements

COMMODITY: Untreated White Muriate of Potash (MOP)

PACKING: Bulk

QUANTITY: Approximately 20,000 short tons. Buyer agrees to purchase 100% of its requirements from Seller during the term of this Agreement.

PRICE: For the January 1 through June 30, 2007 time period pricing will be as follows:

$218/st FFR at Buyer's designated facility Timpie, UT.
$203/st FFR at Buyer's designated facility Savage, MN.
$204/st FFR at Buyer's designated facility Buffalo, IA.
$230/st FFR at Buyer's designated facility White Marsh, MD.
$234/st FFR at Buyer's designated facility Tampa, FL.

Pricing after July 1st, 2007 will be done for 6 month time periods with final pricing determined 15 days prior to the start of the period. For example, July 1 through December 31, 2007 pricing will be finalized by June 15, 2007.

Table 2.1 Vitamin B2 Cartel Prices

Date	Type	List	Lowest
June 1, 1991	USP	110	106
	Feed	89	84
October 1, 1991	USP	117	112
	Feed	94	89
October 1, 1992	Feed	99	94
April 1, 1993	USP	122	116
	Feed	102	97

Table 1 - Lysine Market Allocation (1992, tons)

Company	Global	Europe
Ajinomoto	73,500	34,000
Archer Daniels Midland	48,000	5,000
Kyowa	37,000	8,000
Sewon	20,500	13,500
Cheil	6,000	5,000