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

- \textit{Redacted Contracts} = 1 if firm requests confidential treatment of at least one material sales contract that year
- \%\textit{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
“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?
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
Final thoughts

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
Final thoughts

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Final thoughts

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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

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