What is the Leniency Program?

1993 Department of Justice (DOJ)

- Policy Goals
  - Destabilizing existing cartels
  - Deterring new cartels
- Program Incentives
  - Guarantees complete amnesty from federal prosecution
  - Penalty reductions for confessors
Destabilization of cartels
- Conspirators can simultaneously cheat on cartel and apply for leniency
- Conspirators can exploit policy to raise rivals’ costs
- Stabilize some types of collusive agreements/encourage new cartels to form
**Things to look out for**

- Market concentration
- Amount of fines (relative to cartel profit)
- Firm heterogeneity

*Program will be more powerful when firms anticipate only short-lived cartel profits*
Strategic Leniency and Cartel Enforcement by Nathan H. Miller (2008)

- Motivation: What effect did the Leniency Program have on cartel formation and detection?

- Policy Implications:
  - Determine market efficiency of the program
Information reports issued by the DOJ between January 1, 1985 – March 15, 2005

809 Information reports and 222 Indictments

- Miller consolidated data from multiple documents to identify and group conspirators into cartels that made sense.

*Active cartels are never observed in the data
Methodology: Technique

- Used a reduced-form Poisson regression test
- Constructed a time series of cartel discoveries
- Controlled for
  - economic conditions
  - the budget of the Antitrust Division
  - other factors
- Only included the first cartel discovery per industry in the main regression sample (207 of 339 cartels qualify)
# Poisson Regression Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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<tr>
<td><strong>Leniency program dummy</strong></td>
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<tr>
<td>LENIENCY</td>
<td>0.474***</td>
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<td>(0.080)</td>
<td>(0.133)</td>
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<td><strong>Polynomials in time</strong></td>
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<td>1^{st} Order</td>
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<tr>
<td>TIME2</td>
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<td>Number of Obs.</td>
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Methodology: Model

- Transition parameters
  - Formation rate
  - Detection rate
  - Dissolution rate

Outcomes for Cartel after Implementation

- Start Colluding
- Get Caught
- Dissolve
Results

1. Immediate rise in the expected number of cartel discoveries after an innovation → sufficient to establish an increase in the detection rate.

2. If expected discoveries rise immediately after an innovation then a subsequent readjustment below initial levels → sufficient to establish a decrease in the formation rate.
Miller’s Conclusion

- The number of cartel discoveries increases around the date of the program introduction and then falls below pre-lenience levels.
- Pattern is consistent with enhanced cartel deterrence and detection capabilities.
The theoretical model requires one to draw inferences about the pool of undiscovered cartels with information about discovered cartels (i.e., Antitrust discovers all cartels with equal probability).

Regression sample is essentially a single time-series with one exogenous policy change.