

# **Economic Approaches to Fight Bid Rigging**

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## **Agenda**

- Definition of bid rigging
- Economic impact of bid rigging
- Detection of bid rigging
- Prevention of bid rigging



## **Definition of bid rigging**

- Bid rigging occurs when businesses,
  - that would otherwise be expected to compete,
  - secretly conspire to raise prices or lower the quality of goods
  - for purchasers who wish to acquire products through a bidding process (OECD, 2009)

#### Forms of bid rigging

- cover bidding
- bid suppression
- bid rotation
- market allocation

## **Economic impact of bid rigging**

- Bid rigging conspiracies are often considered as especially 'harmful'
- Three basic determinants of 'harmfulness'
  - Frequency of cartel occurrence
    - Public procurement is significant fraction of GDP in many countries
    - International cartel data set contains about 20 percent bid rigging conspiracies (Connor, 2005)
    - National competition authorities partly show larger shares of up to 70 percent (Froeb et al., 1993)

#### Cartel overcharge

- International cartel data shows total mean overcharge of 23.3 percent (Connor, 2005)
- Sub-set of bid rigging cartels show mean overcharge of 18.6 percent

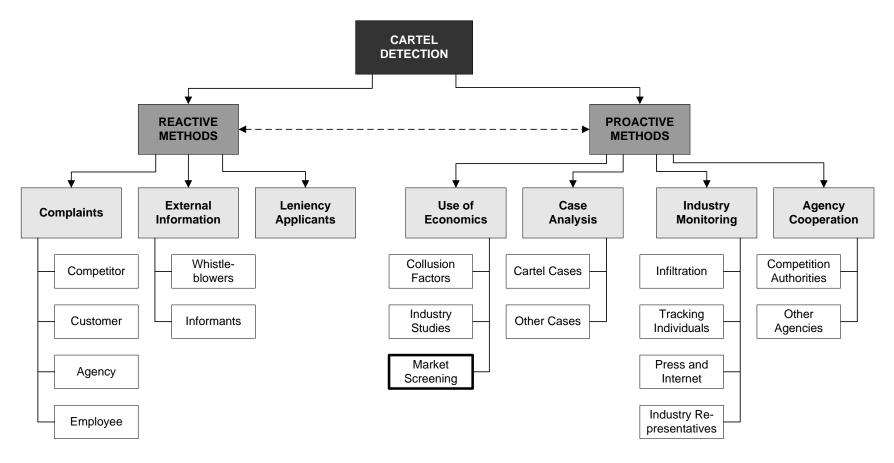
#### Cartel duration

 Bid rigging cartels on average last longer than other types of cartels (Connor and Zimmerman, 2005, studying determinants of cartel length)



## **Detection of bid rigging I**

#### Categorization of methods to detect cartels



## **Detection of bid rigging II**

- Screening refers to a process whereby industries are identified for which the existence of a cartel is likely (Harrington, 2006)
- Two-step procedure often proposed
  - Structural assessment of all industries to identify industries in which a cartel is more likely
  - In-depth behavioral study of these 'suspicious' industries to collect evidence for the actual existence of collusive agreements
- Bid rigging conspiracies might be particularly suitable for an application of screening tools
  - Identification of (public) tender markets often is straightforward thereby easing the identification of 'suspicious' industries
  - Tender procedures typically generate the necessary detailed data to conduct subsequent behavioral assessments
    - Problems of competition authorities to access such detailed data



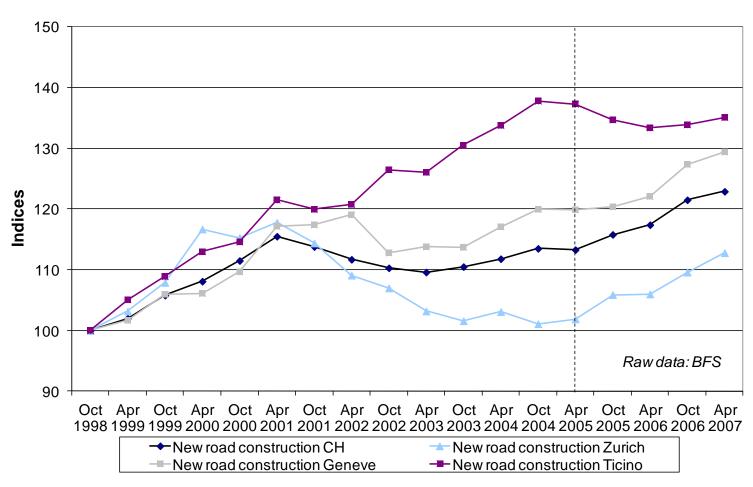
## **Detection of bid rigging III**

- General identification of 'suspicious' behavioral patterns unusual in competitive bidding markets (FCA, 2012)
  - Bidding process
  - Bidding documents
  - Bidding prices
  - Bidders' behavior
- Application of quantitative techniques
  - Identification of patterns
    - Is behavior inconsistent with competition?
    - Is there a structural break in behavior?
  - Comparing competition and collusion
    - Does the behavior of suspected colluding firms differ from that of competitive firms?
    - Does a collusive model fit the data better than a competitive model?



## Detection of bid rigging - Example from Switzerland I

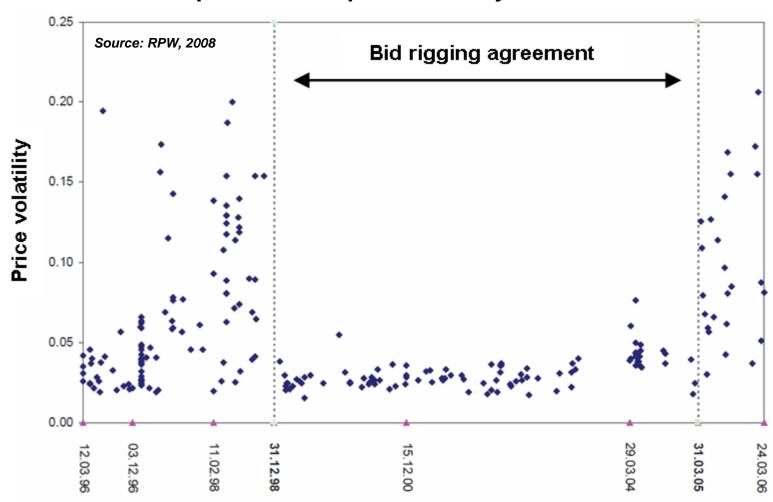
#### Price indices for new road construction





## Detection of bid rigging - Example from Switzerland II

#### Development of the price volatility of the offers





## Prevention of bid rigging

#### Effective prosecution of bid riggers

- Company fines
- Personal fines (financial, incarceration)
- Exclusion from future tenders
- Design and execution of tender procedures (CCB, 2011)
  - Process of seeking bidders
  - Drafting tenders
  - Awarding procedure
  - Training and review

#### Effective compliance activities by participating firms

- General training
- Internal tools to detect bid rigging
- Internal sanctions
- Choice of organization structures which are less prone to collusion



# Thank you for your attention!

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