

How big is a tip of the iceberg? A parsimonious way to estimate cartel detection rate

BACKGROUND

- Cartels are the most heinous form of anti-competitive practice resulting in serious harm to society in the form of higher prices, lesser quality, and/or reduced choice.
- Knowledge of the magnitude of harm caused by illegal collusions is currently limited.
- The main obstacle to establishing the magnitude of harm is that the proportion of cartels actually discovered is unknown.

METHODOLOGY

- The author proposes a parsimonious and simple-to-use method to estimate time-dependent cartel detection and survival rates, whilst allowing heterogeneity across firms and markets.
- The proposed method draws on capture-recapture analysis. The idea in ecology is to trap animals, mark and release them, and recapture them again on a number of occasions. By looking at the proportion of recaptured animals, inferences can be made on population parameters, such as population size, capture rate, and survival rate.
- The method is applied to EU cartels for the period 1985 - 2005.

KEY FINDINGS

- A key premise of the method, supported by empirical evidence, is that there are recaptures in the analysed samples: a large enough number of firms involved in cartels is repeatedly captured.
- Estimates show that the cartel detection rate has stayed under 20% for most of the analysed period (1985-2005), and it has frequently dropped under 10%.
- The fact that various other methods have all given a detection probability in the 10-20% interval shows that these results are fairly robust.
- Cartel survival, interpreted as future capturability, is around 30% in the year following capture. But for those firms that remain capturable later on, apparent survival increases to almost 90%.
- Deterrence seems to have been largely boosted by the introduction of the 1996 leniency programme.

POLICY ISSUES

- Given the simplicity and minimal data needs of the method, it could be developed to provide an important tool for cartel-related policy analysis. Such analysis could also lead to promising new research on the deterrent effect of cartel enforcement.
- Capture-recapture methods could also be imported into other areas of law enforcement that are characterised by a high level of latent illegal behaviour.

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