

# **Use and Abuse of Regression Analysis in Determining Damages in Antitrust**

## **Forensic Economics in Competition Law Enforcement**

**University of Amsterdam**

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**CAP ANALYSIS**

# Multiple Regression

- Versatile tool for identifying the contribution of factors that explain price changes and levels;
- Can be used for both hypothesis testing and to measure damages;
- Reliability is enhanced where facts of the market corroborate assumptions in the model.

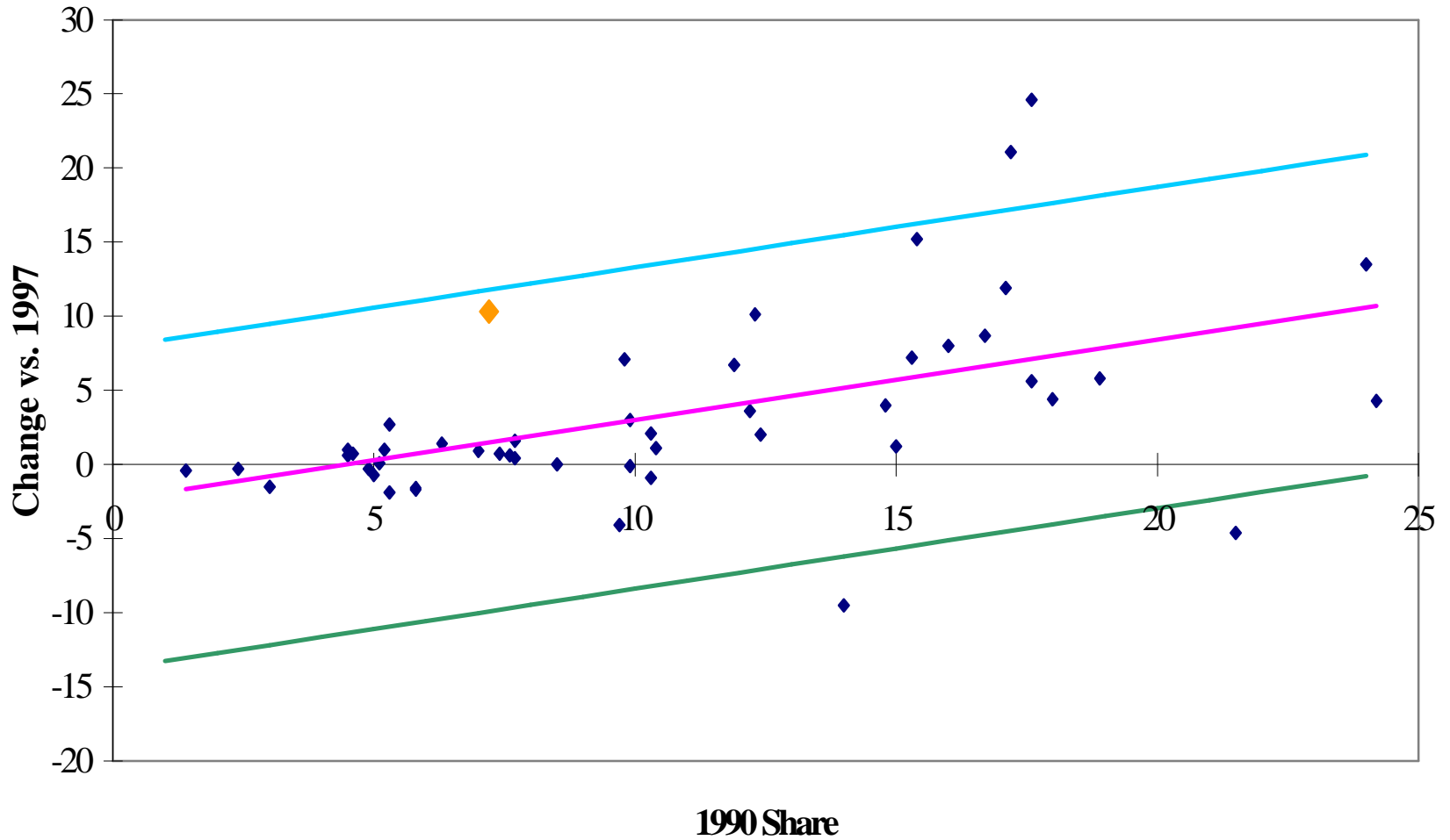
# Where Can Things Go Wrong?

- Task is to forecast “but-for” prices, not model actual prices;
- Is “reduced form” the right form?
  - Omitted variables;
- Robustness
  - Results sensitive to select data;
  - Results sensitive to method of prediction.

# A \$350 Million Data Point

- *Conwood v. U.S. Smokeless*;
- Multiple regression model used to verify the basis for damages;
- Limited number of observations make results overly sensitive;
- Outcome hinged on a single data point.

# Actual and Predicted Change in Conwood's share of MST Sales By State



◆ Y — se - 2 — se + 2 — Trendline

# Dummy Variables, Forecasts and Stability

- Alternative methods to measure damages;
- Dummy variable method may test the question of injury (overcharge, lost profits) as well as value the injury;
- Forecast method assumes nature of supply and demand in one period is sufficiently similar to the period being forecast.

# Stability of the Forecast

- Degree of variability within the so-called “clean” period;
- Select data points may influence predictions;
- *Industrial Silicon.*

# How Far Apart?

	Academic ( <i>Classroom</i> )	Legal Practitioner ( <i>Courtroom</i> )
Concern	Methodological innovation	How well does methodology explain the facts
Outcome	Demonstrate policy tradeoffs	Need to resolve legal disputes
Checks & Balances	Peer review	Adversarial litigation