

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

Equilibrium
Issues

Future
Directions

Christian Rojas' "The Role of Information and Monitoring on Collusion"

Joe Harrington

FTC Microeconomics Conference

November 6-7, 2008

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

Equilibrium
Issues

Future
Directions

Paper's Main Results

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

Equilibrium
Issues

Future
Directions

- Rotemberg-Saloner theory: support is solid.
 - Collusion is less frequent under the high demand state than under the low and medium demand states.
 - When collusion is made easier for the high demand state, the gap between collusion under the low/medium demand state and the high demand state shrinks.
- Green-Porter theory: support is problematic.

Paper's Main Takeaways

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

Equilibrium
Issues

Future
Directions

- With demand volatility, pseudo-tacit collusion is feasible.
- With imperfect monitoring, pseudo-tacit collusion is difficult.
- Possible implication regarding explicit vs. tacit collusion
 - Incremental value of explicit collusion may be greater when there is imperfect monitoring.
 - Many cartels invested considerable time and effort in monitoring.
 - Need treatment allowing regular communication.

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

**Understanding
Results**

Equilibrium
Issues

Future
Directions

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

**Understanding
Results**

Equilibrium
Issues

Future
Directions

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

Equilibrium
Issues

Future
Directions

Equilibrium Issues

Time Preferences

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

**Equilibrium
Issues**

Future
Directions

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

Equilibrium
Issues

Future
Directions

Self-Serving Remarks

- Many cartels monitored the agreement by using sales, not prices.
 - Examples: carbonless paper, citric acid, graphic electrodes, lysine, plasterboard, sorbates, vitamins.
 - Source: J. Harrington, How Do Cartels Operate?, 2006. (self-serving remark #1)
- Monitoring environment
 - Green-Porter: Monitoring in price when ...rms' quantities are private information.
 - Harrington-Skrzypacz (self-serving remark #2)
 - Monitoring in ...rms' quantities when prices are private information.
 - Main result: Symmetric punishments are ineffective at supporting collusion.
- Experiments can shed light on the relevance of the informational setting faced by ...rms.

FTC
Conference

Joe
Harrington

Paper's
Motivation

Paper's
Contributions

Understanding
Results

Equilibrium
Issues

Future
Directions