

**The Effects of Cartel Policy:  
Evidence from the German Electricity  
Cable Industry**

**Hans Normann  
&  
Elaine Tan**

**Royal Holloway College  
University of London**

# Introduction

1. Do cartel laws actually improve competition?
2. Do penalties reduce prices of convicted cartels?

# Introduction

Symposium in the *Journal of Economic Perspectives*

- Crandall and Winston 2003:

*“Researchers have not shown that government prosecution of collusion has led to ... declines in consumer prices”*

- Baker 2003
- See also Connor 2003, Werden 2003

# Introduction

## Our case study

- German high-voltage power-cable cartel
- Federal Cartel Office (FCO) imposed fines of DM300m in 1997
- The cartel existed since 1901

# Timeline

1897 Cartels become *per se legal* in Germany

1901 First cartel contract in the cable industry

1945 Cartels become *per se illegal*

1958 Cartel law enacted

1972 Cable cartel fined

1974 Cable cartel fined

1975 } Cable cartel legal

1985 }

1990 German unification

1992-3 Cable cartel breaks down

1997 Cable cartel fined

# Markets and Cartel Organisation

- Products: high-voltage power cables
- Supply: 21-34 producers (e.g. Siemens, AEG-Alcatel) but CR4 = 84%
- Buyers: mainly electricity producers and public transport companies
- Cartel organisation: Price and quota cartel, institutionalised system of intra-cartel sales

## Exemption Phase 1975-1985

- Cable cartel was an official “rationalisation cartel” which legalised the intra-cartel sales system
  - The intra-cartel sales actually occurred throughout 1958-1990, but from 1975-1985 explicit price agreements were also legalised
- The explicit price agreements are the only difference the exemption period makes

# Empirical Model

$$Q_d = f_1 (P, CON, GDP)$$

$$L = f_2 (Q_s, W, Penalty, Exemption)$$

$$M = f_3 (Q_s, PI, Penalty, Exemption)$$

$$Q_d = Q_s$$



	<i>Q</i>	<i>L</i>	<i>M</i>
<i>P</i>	2.371 (1.535)		
<i>CON</i>	601.269 (57.147)***		
<i>GDP</i>	42.517 (9.916)***		
<i>Q</i>		0.043 (0.017)**	0.0017 (0.0006)***
<i>W</i>		-267.56 (85.21)***	
<i>P<sub>I</sub></i>			- 0.005 (0.018)
<i>Pre-penalty</i>		-1158.61 (930.22)	-31.40 (25.71)
<i>Penalty</i>		-641.67 (862.10)	34.16 (33.31)
<i>Lg-penalty</i>		-154.19 (842.41)	36.84 (26.38)
<i>Exemption</i>		-309.22 (467.81)	-21.07 (15.98)
<i>Lg-exemption</i>		-739.44 (593.28)	112.85 (22.20)***
<i>Constant</i>	-14935.35 (24844.60)	11258.37 (922.99)***	-4.13 (62.89)

# 1. Do cartel laws actually improve competition?

Exemption policy:

- increases profits by 49.7%
- increases price by 10.38%
- decreases consumer welfare by DM112.86 million per year (there is no deadweight loss as demand is inelastic)
- did not improve efficiency

→ Yes, cartel prohibition does have a positive effect

## 2. Do penalties reduce prices of convicted cartels?

Effects of fines:

Penalising the cartel did not lower prices or profits

Two possible explanations:

- (a) Cartel ineffective? → Probably not
- (b) Fines too low? → Very likely

→ Fines do actually not reduce prices if the fines are harmlessly low

# Conclusions

→ Do cartel laws actually improve competition?

Yes they do.

→ Do fines reduce prices of convicted cartels?

Well, actually no if the fines are harmless.