



Cartels in Japan: Norm-oriented collusion

**Akihiko Matsui
University of Tokyo**

Heaven for cartels

- Legal cartels were abundant.
1,002 permitted cartels in 1963
523 in manufacturing sector
4 trillion yen or 28% of total shipment
- Illegal cartels were abundant, too.
⇒ Easy to suspect.

Method of Detection (Japan)

	new investigation (※1)	detected by JFTC (※2)	complaint (※3)
FY1963	41	13	28
1964	34	13	21
1965	148	54	94
1966	96	41	55
1967	104	44	60
1968	138	63	75
1969	111	29	82
1970	132	44	88
1971	98	44	54
1972	116	44	72
Total	1,018	389	629

Method of Detection (Japan) footnotes:

- ※1 # of cases investigation started in the corresponding fiscal year
- ※2 # of cases detected by JFTC (Antimonopoly act 45:4)
- ※3 # of cases investigation started based on the report from public (ibid 45:1)

Source: JFTC Annual Report 1963-1972

Norms and Conventions

- **Sense of permission**

“Many are permitted, why not ours?”

“Everyone does it, so it’s ok.”

- **Equilibrium selection in a repeated game.**

“Let’s collude rather than compete.”

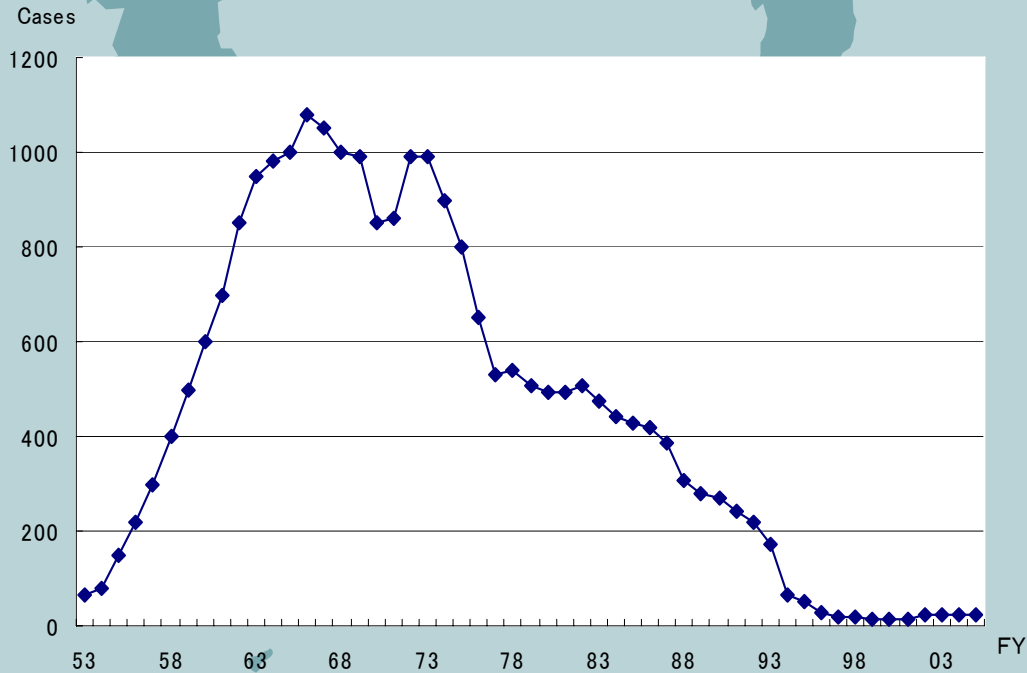
Against norm-oriented cartels

- **Reduce the number of legal cartels**
- **Create the norm:**
“following the rule of the game pays.”

Reduce # of legal cartels

(source: JFTC annual report)

Cartels exempted from the application of Antimonopoly act



Equilibrium Selection

- Norms matter in sustaining collusion.

Not because they are irrational, but because there are many equilibria in a repeated game played by rational firms.

Prisoners' dilemma

	C	D
C	10, 10	2, 12
D	12, 2	4, 4

Grim trigger strategy

- Take “C” until “D” is observed.

If both firms take such a strategy,
collusion is sustained.

Follow it: 10, 10, 10, 10, ...

Defect: 12, 4, 4, 4, ...

Gain/loss: 2, -6, -6, -6, ...

⇒ Collude if $\delta > 1/4$.

With Antimonopoly act

	C	D
C	6, 6	2, 12
D	12, 2	4, 4

With Antimonopoly act II

- Take “C” until “D” is observed.

If both firms take such a strategy,
collusion is sustained.

Follow it: 6, 6, 6, 6, ...

Defect: 12, 4, 4, 4, ...

Gain/loss: 6, -2, -2, -2, ...

With Leniency program

	C	D
C	6, 6	2, 16
D	16, 2	4, 4

With Leniency Program

- Take “C” until “D” is observed.

If both firms take such a strategy,
collusion is sustained.

Follow it: 6, 6, 6, 6, ...

Defect: 16, 4, 4, 4, ...

Gain/Loss: 10, -2, -2, -2, ...

⇒ Collude only if $\delta > 5/6$, i.e., very patient.

Joint defection from cartels

- It makes more sense to consider the possibility of joint defection from cartels esp. when cartel was formed through negotiation.
⇒ 30% each after investigation begins may be not so bad.

Game between firms and JFTC

- Less price fluctuation is a sign of a cartel. (Harrington-Chen)

If JFTC uses it to screen,
firms try to fluctuate the price.

Competition between authorities



- **US: federal—DOJ/FTC; states**
- **EU: EU commission; countries**
- **Japan: JFTC; ???**