

International Antitrust Law and Policy

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Class 5: International Cartels
“Harvest King” and Vitamins, Inc.
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DRAFT

The two basic cartel problems: keep your friends in and everyone else out

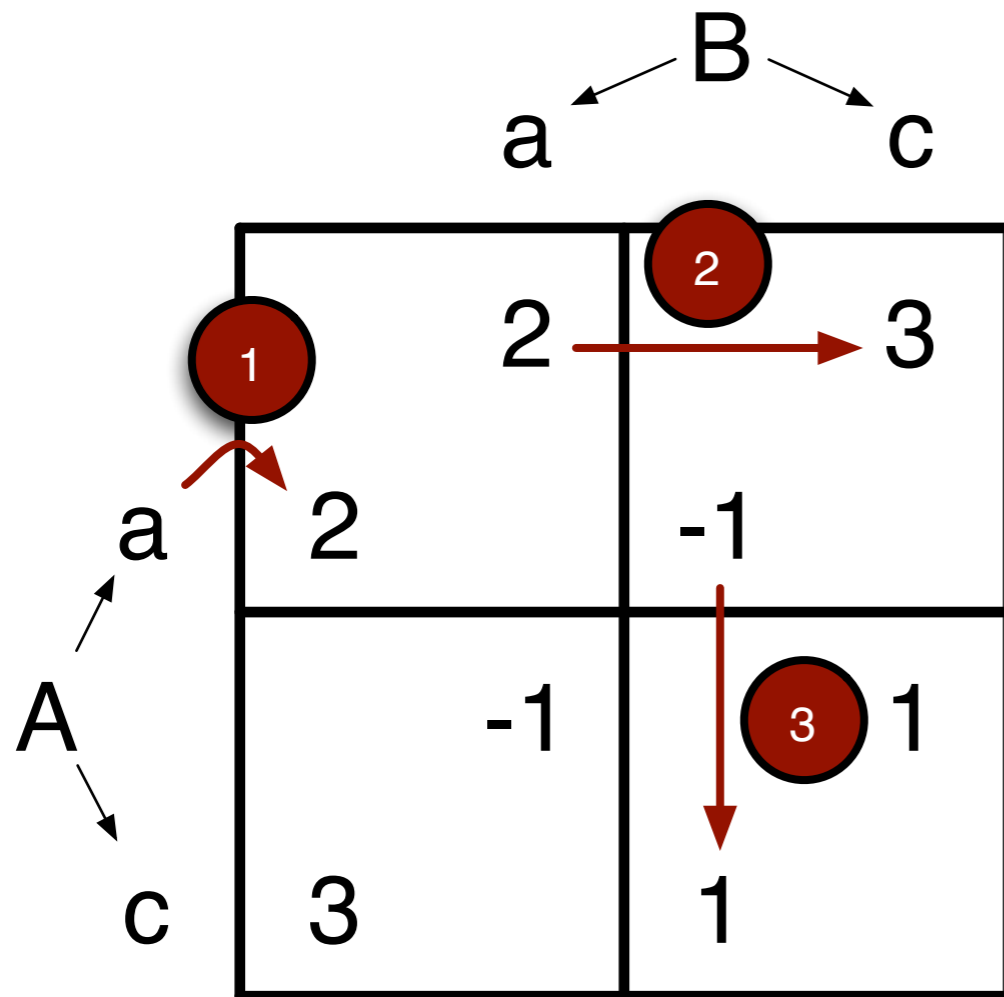
1. Keep your friends in

- Maintain the agreement – few firms, barriers to entry (e.g., IP), personal trust,
- Maintain the incentives – price fixing, production quotas, compensation mechanism
- Monitor performance – transparent pricing, RPM, government involvement (e.g., import/export statistics, certificates of need)
- Punish cheating – excess capacity, multi-market contacts

2. Keep everyone else out

- Maintain entry barriers (e.g., exclusive cross licenses)
- Predatory pricing in the entrant's "home market"
- Limit pricing

In theory, “keeping your friends in” should be next to impossible



1. A moves first and agrees (a) to a price fixing arrangement. Payoff for A and B (2,2)
 2. B can improve its payoff from 2 to 3 by cheating/competing (c)
 3. A, having been pushed into the NE quadrant, can improve its payoff from -1 to 1 by cheating/competing
 4. A and B are stuck in the SE quadrant (1,1). Every unilateral move yields a lower payoff (-1,-1)
- The more successful the group is at raising prices, the greater the individual incentives to cheat
 - But – international cartels have an average lifespan of 6 years!

The “typical” international cartel: firms, products, market structure

● Participants

- Multinationals (More than 80% headquartered in Europe and Asia).
- Manufacturers, e.g., BASF (\$42bn), ADM (\$36bn), Roche (\$28bn), Ajinomoto (\$9bn).
- Serial price fixing is common (Roche, Akzo Nobel, ADM).
- Global cartels tend to have 3-5 core members
- Involvement of multiple levels of management

● Products

- Homogenous products
- Organic chemicals (49 out of 167 cartels manipulated organic chemicals)

● Market characteristics

- Concentrated at the manufacturer level
- Dispersed at the buyer level
- Mature market (no innovation, established price terms)
- High barriers to entry

The “typical” international cartel: activities, effects, penalties

- **Cartel activities**

- Price fixing and volume allocation
 - Territorial and customer allocation
 - Communication through trade associations and joint ventures
- Monitoring
 - Audits of price and volume by region, import/export statistics
- Compensation (cross-purchasing)
- Punishment
- Entry deterrence
 - Patent pools, anti dumping, quotas, common sales agency

- **Effects**

- Average lifespan of international cartels in the 1990 was approximately 6 years.

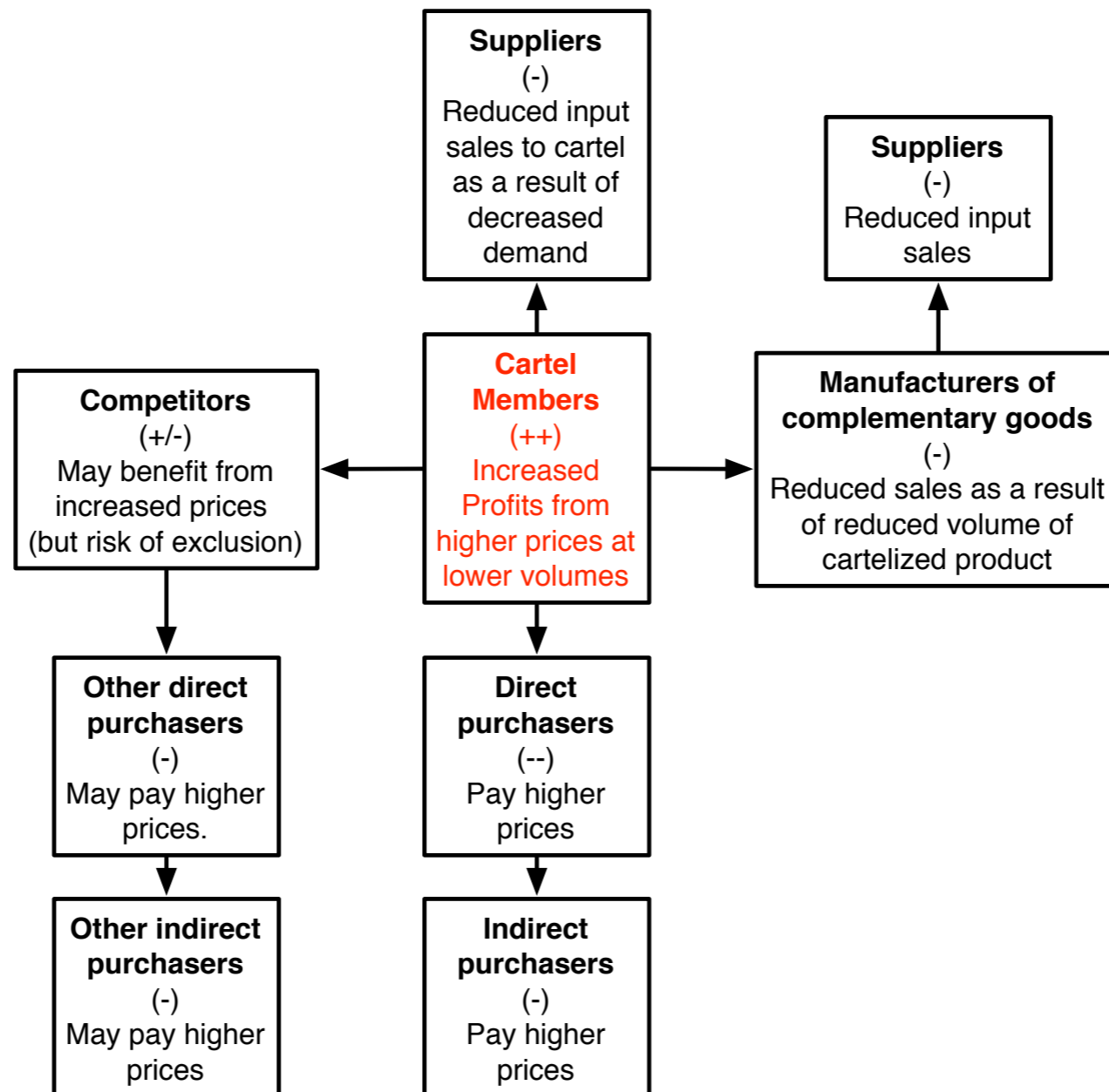
- Overcharges have been in the 25% (U.S.) to 40% (EU) range.
- Distribution of overcharges is usually 1/3 U.S., 1/3 EU, and 1/3 ROW.

Vitamins, Inc. was unusually ROW-heavy.

- **Penalties (fines + private)**

- 80% U.S.; 15% Europe; 5% ROW.
- Probability of detection 10-30% over the average lifetime. (Speculative.)
- In the U.S. the mean settlement value is ~ 75% of the actual damages.

Cartels: Who wins, who loses?



http://europa.eu.int/comm/competition/antitrust/others/private_enforcement/index_en.html

The Lysine Cartel: Timeline

- **Pre-1991 foreign cartel**
 - Ajinomoto (JP), Sewon (JP), Kyowa Hakko (KR), Price ~ \$3/lb.
- **1991 ADM enters the market**
 - Wins 80% of the U.S. market; price drops from \$3 to \$0.70/lb.
- **1992 ADM joins the club**
 - Price agreement (\$1.2/lb) but no volume agreement
 - Ajinomoto rejects ADM's "1/3 each" proposal
 - Meetings in Mexico City, Paris, fake trade association (animal rights). ADM organizes the "plant tour"
- Whitacre (ADM) turns FBI informant
- **1993 volume agreement**
 - Meeting of top ADM and Ajinomoto management in Irvine
 - Mick Andreas (ADM) accepts less than 1/3 for ADM and threatens to flood the market
 - Volume agreement
 - Tonnage and share of market growth.
 - Budgets, audits, scorecards (over/under), compensation
 - Price fixing on regional basis
 - Accounts for currency risk and arbitrage
- **1995 FBI raid ends cartel**

Outcome of the cartel prosecution

- **ADM – total fines and damages: \$212m**

\$70m fine for lysine price fixing, \$30m fine for citric acid price fixing; \$49m to direct buyers (class action settlement), \$25m to opt-out plaintiffs; \$15m to indirect purchasers; \$45m EU fine; \$8m Canadian judgment.

- **ADM – total gains: \$180m**

\$80m in the U.S. and \$100m in the ROW (1992-95)

- **Asian conspirators – \$21m in fines**

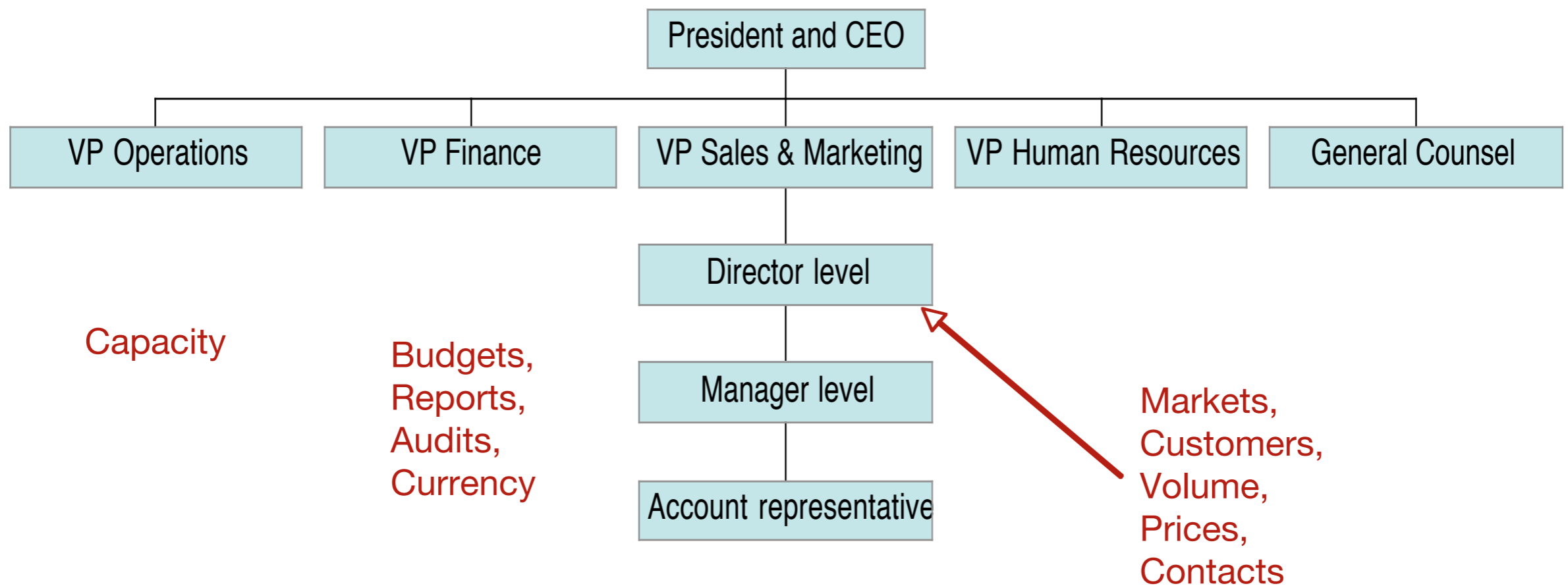
- **Individual penalties**

- Mick Andreas and Terry Wilson: 24 months jail and \$350,000 fines.
- Mark Whitacre, 9 years for embezzlement and 30 months for price-fixing
- Mimoto (Ajinomoto), Yamamoto (Kyowa), Kim (Sewon) plead guilty and paid fines (~ \$50,000).
- Yamada (Ajinomoto) indicted and remains international fugitive.

The compensation scheme

- Compensation schemes are critical to the success of a cartel. They complement the volume agreement.
- Example. Cartel price = \$2. Target volume: A = 1,000 tons, B = 800 tons. At year end, A sold 1,100 and B 700. A is “100 over and B is 100 under.” A now buys 100 from B at the \$2 cartel price to “balance the accounts.”
 - B has no incentive to cut prices, because B knows that it will get \$2/ton for the shortfall. Put differently, there is no incentive for B to “use up” its quota with below-cartel prices.
 - Requires detailed budgets and effective audits.

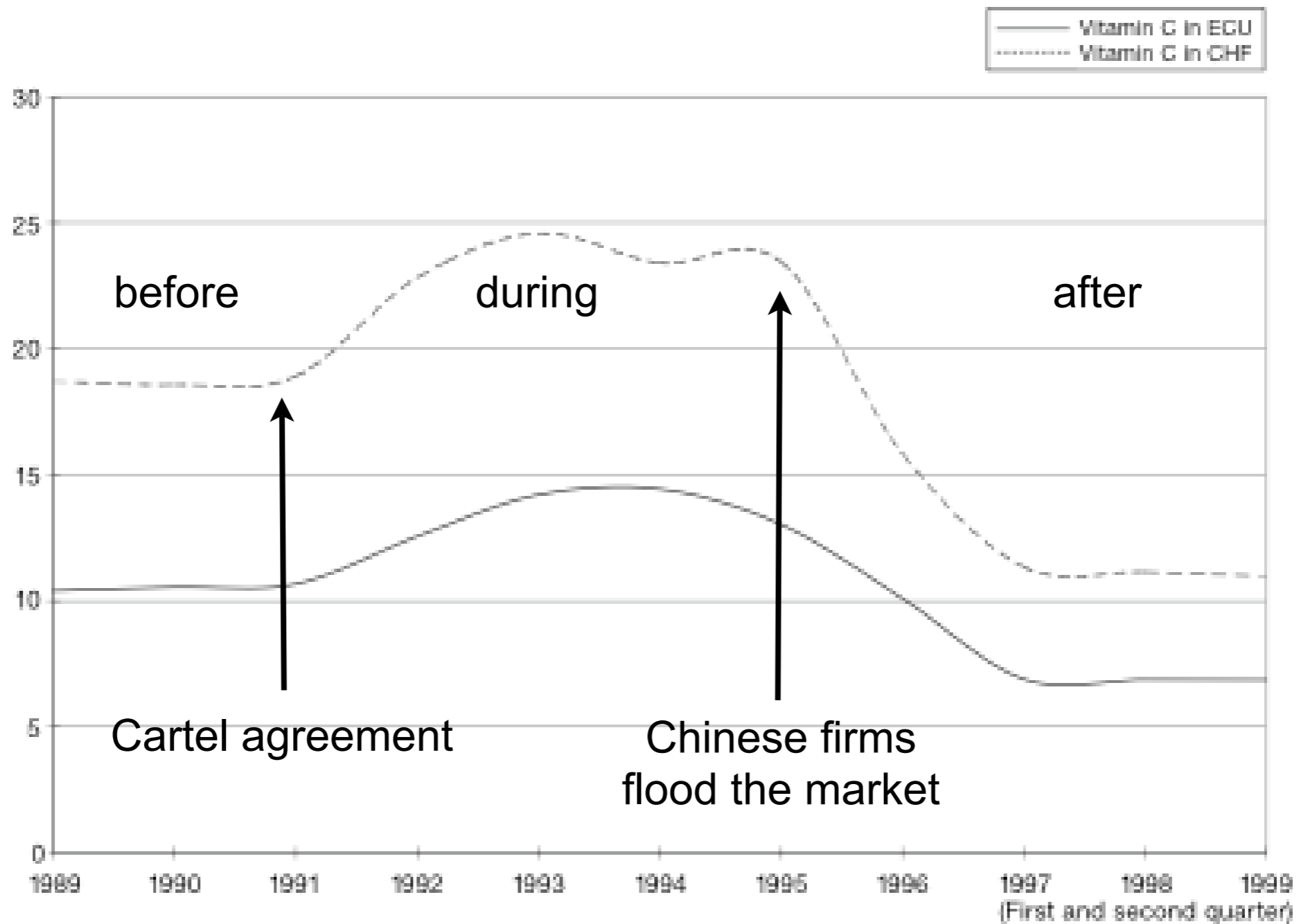
Whose files do cartel investigators (usually) search first?



Vitamins, Inc.

- Series of interlocking conspiracies to fix prices for 16 products.
 - “The most pervasive and harmful criminal antitrust conspiracy ever uncovered.” (Joel Klein).
- Duration: Up to ten years (1989-1999) for Vitamins A and E.
 - Vitamin H and C cartel collapsed in 1994, after high cartel prices induced massive exports from China.
- Key participants
 - Hoffman-La Roche (Switzerland), BASF (Germany), Rhone-Poulenc (France), Esai (Japan), jointly controlling > 85% of world supply.
- Basic scheme
 - “The fundamental idea underlying the cartel was to freeze market shares ... at the 1998 level”. (Commission)
 - Volume quotas
 - Budgets, reports, compensation

Prices for Vitamin C before, during, and after the cartel



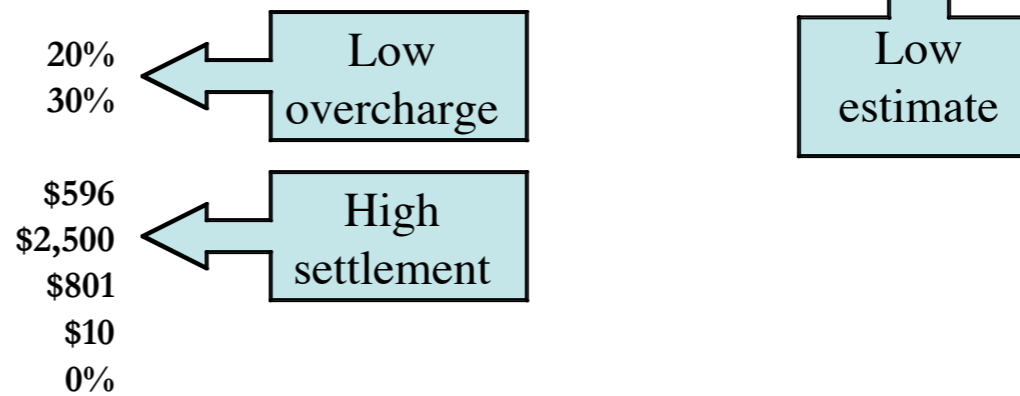
Vitamins, Inc. Did crime pay?

Yes, \$3.8 bn (low estimate)

	Commerce	Overcharge	Fines	Damages	Penalties	P/OC	Cartel Gain
U.S.	\$7,400	\$1,480	\$911	\$3,897	\$4,808	325%	(\$3,328)
Europe	\$8,300	\$2,490	\$767	\$10	\$777	31%	\$1,713
Canada	\$550	\$165	\$100	\$15	\$115	70%	\$50
ROW	\$18,200	\$5,460	\$17	\$7	\$24	0%	\$5,436
Total	\$34,450	\$9,595	\$1,795	\$3,929	\$5,724	60%	\$3,871

Parameters

- (1) U.S. Overcharge (20-35%)
- (2) EU, CAN, ROW Overcharge (30-40%)
- (3) U.S. Damages
 - Known class action settlements
 - Opt-out settlements (\$1,500-\$2,500)
 - Indirect purchasers
- (4) Europe Damages
- (5) ROW recovery in U.S. courts (0-300%)



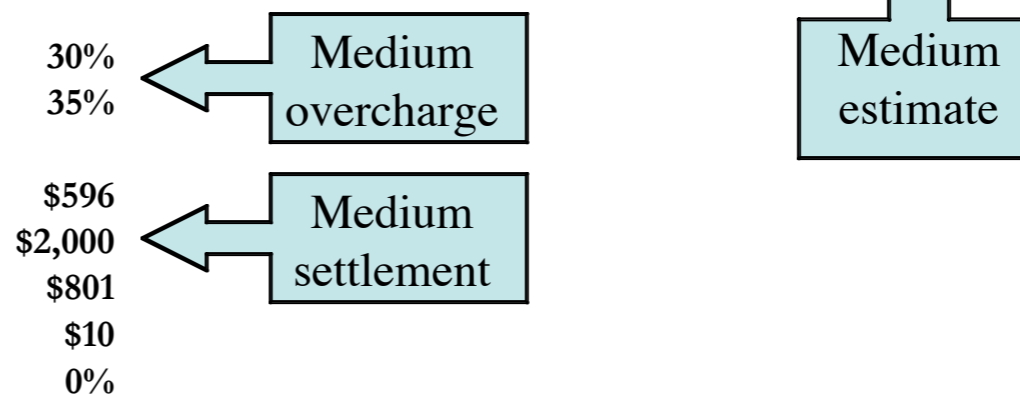
Vitamins, Inc. Did crime pay?

Yes, \$6.4 bn (medium estimate)

	Commerce	Overcharge	Fines	Damages	Penalties	P/OC	Cartel Gain
U.S.	\$7,400	\$2,220	\$911	\$3,397	\$4,308	194%	(\$2,088)
Europe	\$8,300	\$2,905	\$767	\$10	\$777	27%	\$2,128
Canada	\$550	\$193	\$100	\$15	\$115	60%	\$78
ROW	\$18,200	\$6,370	\$17	\$7	\$24	0%	\$6,346
Total	\$34,450	\$11,688	\$1,795	\$3,429	\$5,224	45%	\$6,464

Parameters

- (1) U.S. Overcharge (20-35%)
- (2) EU, CAN, ROW Overcharge (30-40%)
- (3) U.S. Damages
 - Known class action settlements
 - Opt-out settlements (\$1,500-\$2,500)
 - Indirect purchasers
- (4) Europe Damages
- (5) ROW recovery in U.S. courts (0-300%)



Vitamins, Inc. Did crime pay?

Yes, \$8.6 bn (high estimate)

	Commerce	Overcharge	Fines	Damages	Penalties	P/OC	Cartel Gain
U.S.	\$7,400	\$2,590	\$911	\$2,897	\$3,808	147%	(\$1,218)
Europe	\$8,300	\$3,320	\$767	\$10	\$777	23%	\$2,543
Canada	\$550	\$220	\$100	\$15	\$115	52%	\$105
ROW	\$18,200	\$7,280	\$17	\$7	\$24	0%	\$7,256
Total	\$34,450	\$13,410	\$1,795	\$2,929	\$4,724	35%	\$8,686

Parameters

- (1) U.S. Overcharge (20-35%)
- (2) EU, CAN, ROW Overcharge (30-40%)
- (3) U.S. Damages
 - Known class action settlements
 - Opt-out settlements (\$1,500-\$2,500)
 - Indirect purchasers
- (4) Europe Damages
- (5) ROW recovery in U.S. courts (0-300%)

