

Tacit Collusion and Competition Policy

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Introduction

- ① What is tacit collusion?
- ② When is tacit collusion unlawful?
- ③ What are different methods of tacit collusion?
- ④ How do we fight tacit collusion?

Defining tacit collusion

What is collusion?

- Collusion is coordinated conduct to constrain competition.
- Collusion results in a supracompetitive outcome sustained by a reward-punishment scheme.
- Supracompetitive outcome is often high prices which could result from firms agreeing to adopt
 - a common high price
 - a practice that results in high prices (e.g., restricting capacities, not poaching customers)
- Reward-punishment scheme
 - Short-run profit gain from "cheating" (e.g., undercutting collusive price)
 - Long-run profit loss from cheating (e.g., return to competitive outcome) incentivizes compliance

Defining tacit collusion

What is unlawful collusion?

- U.S. Supreme Court developed the doctrine that an *agreement to restrain trade* is unlawful where an agreement is
 - "unity of purpose or a common design and understanding, or a meeting of minds" (*American Tobacco Co. v. United States*, 1946)
 - "conscious commitment to a common scheme" (*Monsanto Co. v. Spray-Rite Serv. Corp.*, 1984)
- E.U. General Court defines an agreement as
 - "joint intention" (*ACF Chemiefarma*, 1970)
 - "concurrence of wills" (*Bayer v. Commission*, 2000)
- An agreement is mutual understanding to restrain competition.

Defining tacit collusion

What is unlawful collusion?

- The process is unlawful, not the outcome.
- "Not every parallel pricing outcome constitutes an agreement because not every such outcome was reached through the process to which the law objects: a negotiation that concludes when the firms convey mutual assurances that the understanding they reached will be carried out." (Baker, *Antitrust Law Journal*, 1993)
- "[Firms] need not have exchanged promises or assurances of their actions; it is enough that they have communicated their intent to act and their reliance on others to do so." (Page, *Antitrust Law Journal*, 2007)

Defining tacit collusion

German government auction of ten blocks of spectrum

- Auction rule: Any bid must be at least 10% higher than the current bid.
- Mannesman's initial bids:
 - Blocks 1-5: 20 million DM/megahertz
 - Blocks 6-10: 18.18 million DM/megahertz
- As a bid of 20 is a 10% increase on 18.18, was Mannesman signaling to T-Mobile that each should win 5 blocks at 20 million?
- In the next round, T-Mobile bid 20 million on blocks 6-10. There were no subsequent bids.

Defining tacit collusion

Explicit vs tacit collusion

- *Explicit collusion* involves an express agreement.
- An agreement is express when it is “directly, firmly, and explicitly stated” and there is “an absence of vagueness or ambiguity.” (Kaplow, *Competition Policy and Price Fixing*, 2013)
- Explicit collusion can mean
 - an express invitation to collude and an express acceptance of that invitation
 - an express exchange of price or supply intentions.

Defining tacit collusion

- *Tacit collusion* is collusion that is not explicit.
- Firms used non-express communication or used express but incomplete communication.
- Firms engaged in express and complete communication but there is not direct evidence of it (Kovacic, *Antitrust Bulletin*, 1993)
 - "Cases that speak of express agreements ordinarily involve direct, readily observable proof that the defendants have exchanged assurances that they will pursue a common course of action."
 - "Most cases that speak of 'tacit' collusion refer to instances in which the plaintiff invokes 'indirect' or 'circumstantial' evidence to establish the fact of the agreement."
- Common challenge: absence of direct evidence of an agreement.

Defining tacit collusion

Stages of collusion

- 1 Initiation - achieving mutual understanding that firms are to constrain competition
 - 2 Adoption (of a collusive arrangement) - how they are to constrain competition
 - 3 Implementation (of the collusive arrangement) - selecting price, monitoring, punishing, conducting transfers
- Due to the limited communication associated with tacit collusion,
 - multiple elements are typically conflated.
 - adoption involves a simple collusive arrangement.
 - implementation is implicit.

Proving tacit collusion is unlawful

How do you prove there is an agreement without direct evidence?

- In the typical case of tacit collusion, necessary conditions to obtain a conviction are:
 - ① Excluding the possibility of independent action by firms.
 - ② Identifying a remedy.

Proving tacit collusion is unlawful

Can you exclude the possibility of independent action?

- “There must be evidence that tends to exclude the possibility of independent action by the [parties]. That is, there must be direct or circumstantial evidence that reasonably tends to prove that [the parties] had a conscious commitment to a common scheme.”
Monsanto Co. v. Spray-Rite Service Corp. (1984)
- Overt act of communication
 - Means by which their conduct could have been coordinated and thus is not independent.
 - “Few courts have found a conspiracy without some evidence of communication tending to show an agreement.” Hovenkamp (*Federal Antitrust Policy: The Law of Competition and Its Practice*, 2016)

Proving tacit collusion is unlawful

Can you exclude the possibility of independent action?

- Conduct against a defendant's independent self-interest - not unilaterally optimal, only optimal as part of common plan.
 - “If the defendants have engaged in conduct that would further the interests of a conspiracy but would be against each defendant's interests if it were acting separately, the actions taken by the defendants are circumstantial proof of conspiracy.” (American Bar Association)

Proving tacit collusion is unlawful

Is there a remedy?

- "Individual pricing decisions (even when each firm rests its own decisions upon its belief that competitors do the same) do not constitute an unlawful agreement ... because it is close to impossible to devise a judicially enforceable remedy for "interdependent" pricing. How does one order a firm to set its prices without regard to the likely reactions of its competitors?" - *Clamp-all Corporation v. Cast Iron Soil Pipe Institute* (1988)

Proving tacit collusion is unlawful

Is there a remedy?

- Requirements on the prohibition on conduct
 - ① It cannot interfere with the normal competitive process.
 - Restrictions on how a firm prices will usually not work.
 - ② It must be clearly articulated to firms so they know how to avoid violating the prohibition.
 - Cannot prohibit a state of mind such as a "meeting of minds".

Methods of tacit collusion

- 1 Private announcements
 - 1 Sharing price intentions
 - 2 Sharing prices
 - 2 Public announcements
 - 1 Reference to a firm's own conduct
 - 2 Reference to rival firms' conduct
 - 3 Public actions
 - 1 Pricing policies
 - 2 Prices, bids
- Using specific cases,
 - describe how these methods worked.
 - explain how different forms of tacit collusion were prosecuted.

Private announcements

Sharing price intentions

U.S. v. Foley (1979)

- Dinner party among six real estate agencies (Sept 1974)
 - Foley announced it was raising its commission rate from 6 to 7%.
- 7% commission rate was adopted over the ensuing months by many of those in attendance.
 - Throughout 1975, four realtors had around 80% of listings at 7%.
- Evidence of an agreement
 - Announcement was an invitation to coordinate on that price (means by which firms coordinate)
 - Subsequent adoption of that price was acceptance of that invitation (effect firms did coordinate)

Private announcements

Sharing prices

U.S. v. Container Corporation of America (1969)

- Corrugated containers
- 18 manufacturers with 90% of shipments from plants in the Southeastern U.S.
- Coordinating practice
 - When requested by a rival firm, a firm would supply the most recent price charged or quoted.
 - No communication regarding what price to charge.
 - Firms did not undercut a rival firm's price.
- Court inferred an information exchange agreement (based on reciprocity) but not a pricing agreement.

Private announcements

Sharing prices

- Evidence of effect established a restraint of trade
 - Defendant: "After some competitors had discontinued giving and receiving the most recent price charged or quoted to specific customers, the prices of corrugated containers deteriorated 40%."
- Plus factor: providing price information to a rival firm is
 - disadvantageous under competition, as a rival firm would know exactly what price to charge to get a customer's business
 - advantageous under collusion, as it supports a price-matching policy and weakens the incentive to try to poach customers
- Court concluded there was an agreement which restrained trade.

Public announcements

- Public announcements refer to the conveyance of information by a firm using a medium that is accessible to individuals outside of the firm.
- Media
 - Press releases
 - Earnings calls
 - Speeches, panel discussions at semi-public industry meetings
 - Financial reports (e.g., annual report)
 - Interviews in trade journals

Public announcements

- Media are accessible to most market participants including financial analysts, input suppliers, customers, competitors.
- Challenge: Distinguishing between pro-competitive and anti-competitive public communication.
- Two types of announcements
 - Reference a firm's own conduct
 - Reference rival firms' conduct

Public announcements

Reference own conduct: advance price announcements

- A firm announces a future price increase through some public medium (e.g., press release)
- If rival firms respond with similar announcements then proposed price increases are implemented.
- If rival firms do not respond in kind then the initial firm retracts the proposed price increase.
- Is it intended for customers or competitors (as a costless form of price leadership)?
- How does one prohibit "anticompetitive" advance price announcements?

Public announcements

Reference own conduct: advance price announcements

Container liner shipping (European Commission, 2016)

- Since 2009, 15 container liner shipping companies regularly publicly announced their future General Rate Increase of freight prices.
- GRI announcements were made 3-5 weeks before their intended implementation date.
- Some or all of the other carriers typically responded by announcing similar intended rate increases.
- Announced GRIs may be modified in order to align them with other carriers' announced GRIs.

Public announcements

Reference own conduct: advance price announcements

- European Commission: "This practice may allow the companies to signal future price intentions to each other and may harm competition and customers by raising prices."
- Carriers agreed to a behavioral remedy for a period of three years:
 - Stop publishing and communicating GRIs (i.e., price changes expressed solely as an amount or percentage of the change)
 - Price announcements will be binding as maximum prices for the announced period of validity.
 - Price announcements will not be made more than 31 days before their entry into force.

Public announcements

Reference own conduct

Retail gasoline (Norway)

- Price pattern is "rockets and feathers"
- Most stations would raise price on the same day, after which prices would decline until the next price increase.
- Pre-Nov 2017: prices would rise on Mondays and Thursdays



Public announcements

Reference own conduct

- Post-Dec 2017: Circle K would lead the price increase by "signaling" on its web site



Public announcements

Reference own conduct

Communication practice

- Around 8:00 am, Circle K changes information on its publicly accessible website.
- It updates the “valid from” date to the current date, changes the recommended prices (when they are different from the previous recommended prices), and states that the change is effective at 10 am.
- Between 8:30 and 9:30, YX matches Circle K’s announcement on its own publicly accessible website.
- At 10:00, Circle K and YX raise their prices to the currently recommended prices.
- Other companies follow in the ensuing hours.

Public announcements

Reference own conduct

- Example
 - Online recommended price is 15.90, retail price is 14.70.
 - Circle K changes the "valid from" date to the current date. Recommended price is still 15.90.
 - Retail prices rise from 14.70 to 15.90
- Changing the "valid from" date was a signal by Circle K to the other companies to raise retail prices to Circle K's recommended price.
- Remedy: prohibit Circle K from the online posting of recommended prices
 - Recommended prices are not transaction prices.
 - Announcements are messages which facilitate coordination and are not part of the competitive process.

Public announcements

Reference rival firms' conduct

Public announcements that refer to rival firms' conduct

- A firm announces how it will behave in response to rival firms' conduct.
 - Free-standing newspaper inserts, one-way truck rental, mobile telecom, airline first-bag fees
- A firm announces how rival firms should behave.
 - Pork, broiler chicken, steel, airlines
- A firm announces how rival firms will behave.
 - A forecast may be intended as a recommendation.
 - No known cases.
- Harrington, Joseph E., Jr., "Collusion in Plain Sight: Firms' Use of Public Announcements to Restrain Competition," working paper, 2021.

Public announcements

Reference rival firms' conduct: how it will respond to rival firms' conduct

Mobile telecom (The Netherlands) - Telecom Update interview with a KPN executive

- KPN states that competition is too intense
 - “Operators have focused too heavily on increasing their market shares by reducing prices.”
- KPN proposes a collusive plan
 - “KPN has a market share of around 50% and we are happy with that. We will carefully start raising prices this year.”
- KPN emphasizes that compliance by other firms is required
 - “If we will be punished by the markets and our market share will be immensely under pressure, then we will have to make other plans.”
- T-Mobile infers the message (internal email)
 - “KPN wants to maintain its market shares, but also to improve its profit margin. A dilemma for T-Mobile given the growth ambition.”

Public announcements

Reference rival firms' conduct: how it will respond to rival firms' conduct

- Other cases
 - Free-standing newspaper inserts (FTC, 2006)
 - One-way truck rental (FTC, 2010)
- Common problem is stated: high-ranking company official notes excessive or intensifying competition
 - “declining price environment” in free-standing newspaper inserts
 - “[supply is] being priced well below the cost of providing the service” in one-way truck rentals
- Solution is proposed
 - Invites competitors to participate in a coordinated increase in prices
 - Announcing firm will take the lead by raising price with the maintenance of those higher prices being conditional on the other firms raising their prices

Public announcements

Reference rival firms' conduct: how it will respond to rival firms' conduct

Airline first-bag fees

- Atlanta market: AirTran and Delta Airlines are dominant
- July 2008 Delta earnings call: It is considering a first-bag fee.
- Oct 2008 AirTran earnings call
 - “I think we prefer to be a follower in a situation rather than a leader.”
 - If Delta adopted a first-bag fee then “it would strongly consider it.”
- Delta infers Air Tran will follow Delta's lead
 - Pre-announcement: Delta's estimated a first-bag fee to be unprofitable.
 - Post-announcement: Delta VP raises the probability AirTran would match a Delta first-bag fee from 50% to 90%; it is now profitable.

Public announcements

Reference rival firms' conduct: how it will respond to rival firms' conduct

- Effect
 - Nov 5, 2008 – Press Release: Delta will charge \$15 for the first checked bag, effective December 5, 2008.
 - Nov 12, 2008 – Press Release: AirTran will charge \$15 for the first checked bag, effective December 5, 2008
- Evidence of agreement: communication to facilitate an agreement and effect to show its existence.
 - AirTran's earnings call was an invitation to coordinate on a leader-follower arrangement.
 - Delta accepted this invitation by publicly announcing its plan to institute a first-bag fee.
 - AirTran responded with an identical plan for having a first-bag fee.

Public announcements

Reference rival firms' conduct: how it will respond to rival firms' conduct

- These cases exemplify a general collusive strategy which does not require articulating a specific plan.
- A firm either announces
 - it will act as a leader (and how its actions are contingent on what a rival does) or
 - it will act as a follower (and how its actions are contingent on what a rival does)
- Public announcements create a level of assurances that a price increase will be matched and that makes it more likely that coordinated price increases will occur.

Public announcements

Reference rival firms' conduct: how rival firms should behave

- Announcements that expressly recommend how competitors or the industry at large should behave.
- Announcements that comment on past conduct by competitors or the industry at large.
 - A firm commends past conduct and thereby implicitly recommends continuation of that conduct.
 - A firm criticizes past conduct and thereby implicitly recommends discontinuation of that conduct.

Public announcements

Reference rival firms' conduct: how rival firms should behave

Airlines

- Announcements of a collusive (“capacity discipline”) plan delivers an agreement
 - Delta President (industry conference): “I said no in terms of has enough capacity been cut. Everybody is watching each other in terms of how the capacity coming over and exactly what’s coming out.”
 - Delta VP (earnings call): “I think Delta can’t do it alone. I would say if the industry could achieve a 10% reduction in capacity year-over-year by the fall that we’d be in pretty shape.”

Public announcements

Reference rival firms' conduct: how rival firms should behave

Effect (of collusive plan) – industry conferences

- United CFO: “What we have seen so far is very good overall behavior in terms of capacity discipline on the part of the industry.”
- American Airlines CEO: “There are hopeful signs that the industry has learned its lesson about keeping capacity growth in line with demand.”
- Delta President: “We are doing our share at maintaining the overall discipline across our structure and we would expect our competitors hopefully to do the same.”

Public announcements

Reference rival firms' conduct: how rival firms should behave

Effect (of collusive plan) – empirical analysis (Aryal, Ciliberto, and Leyden, working paper, 2020)

- Earnings call transcripts for the seven legacy airlines, 2002-16
- Earnings calls were classified as referring to *capacity discipline* when they used “capacity discipline” or “capacity” with other terms such as “demand” and “GDP”
- Maintained hypothesis: Airlines communicated a reduction in capacity when all airlines serving a route had earnings calls in the same quarter which referred to *capacity discipline*.
- Controlling for other factors, capacity on a route fell by 1.8% in the quarter after airlines communicated *capacity discipline*.
- Change in capacity was almost 50% greater than normal

Public announcements

Reference rival firms' conduct: how rival firms should behave

Common elements to airline and steel cases

- 1 Industry experienced consolidation which resulted in a market structure more conducive to lessened competition.
- 2 Earnings calls and statements at industry conferences facilitated mutual understanding of a plan to restrict capacity and supply in order to raise prices.
 - Firms expressed a need for “the elimination of inefficient and redundant domestic capacity” and a plan for “capacity discipline to make the industry profitable.”
 - A coordinated industry effort was required because a firm is “not going to do it at [its own] expense and to the benefit of others. The whole industry needs to have discipline.”
- 3 When they succeeded in implementing this plan, executives provided affirmation and support.

Public announcements

Reference rival firms' conduct: how rival firms should behave

Proposed legal treatment of announcements that state how rival firms should behave.

- These public announcements should be treated as equivalent to private announcements made to rival firms.
- Other than rival firms, the only possible audience which would find them informative is the capital market.
- The only reason these announcements would be informative to the capital market is if they affect rival firms' conduct.
- Information for the capital market is not an alternative rationale but rather is an ancillary effect.

Public actions

- Pricing policies
- Bids as coded messages - FCC spectrum auctions
- Price and bid signaling - not prosecutable because of no remedy
 - German spectrum auction
 - Gasoline (Bryne and de Roos, 2019)

Public actions

Turbine generators (U.S. DOJ, 1975) (Harrington, JCLE, 2011)

- 1950s - prices are set through negotiation or a bidding process.
- 1960 - General Electric, Westinghouse, and Allis-Chalmers were convicted for explicit collusion.
 - Collusion involved customer allocation, bid rigging, private information exchange.
- 1960-63 - aggressive price competition in post-cartel period.
 - Prices decreased by 50%
 - Allis-Chalmers exited in 1962.

Public actions

- 1963 - GE decides to pursue tacit collusion with Westinghouse.
- Shift to posted prices and price leadership
 - GE released a pricing book.
 - GE announced a standard multiplier it would apply to the book price to calculate the final price.
 - GE adopted a policy of "no discounts" off of that final price.
 - Westinghouse matched these practices.
- Outcome
 - GE and Westinghouse had identical multipliers and book prices on their turbine generator bids for the next 12 years.
 - They effected no generator price decreases.

Public actions

Adoption of posted pricing provides "exchange of assurances"

- Adoption of posted pricing is not in a firm's interest under competition
 - If GE posts price then Westinghouse can just undercut the price and take a large share of business.
- Adoption of posted pricing is in a firm's interests under collusion
 - Posted pricing makes coordination and monitoring easier
- Adoption of posted pricing produced mutual understanding that firms are trying to collude
 - GE's adoption of posted pricing was optimal *only if* it believed coordinated pricing would ensue.
 - Westinghouse's response of posted pricing was optimal *only if* it believed coordinated pricing would ensue.

Public actions

U.S. spectrum auctions (FCC, 1994-98)

- Licenses are auctioned using a simultaneous, multiple-round, open format.
- Each license is designated by a three-digit number.
- Bidders used the last three digits of a multi-million dollar bid to signal to another bidder not to bid on a particular license.
- Example
 - License 264: Mercury wants to signal to High Plains to stop bidding on 264.
 - License 013: High Plains has been the top bidder since round 68.
 - Round 121
 - Mercury submits a bid for license 013 that ends in 264.
 - Mercury submits a bid for license 264 ending in 013.

Public actions

U.S. spectrum auctions (FCC, 1994-98)

- More than price signaling because
 - last 3 digits served as code to implement a market allocation scheme.
 - last 3 digits (of a multi-million dollar bid) has a de minimis effect on winning a license.
- Evidence to establish a market allocation scheme
 - Show there is a statistical relationship between the last 3 digits of a bidder's bid and the bids of another bidder.
 - Show this relationship results in lower winning bids.

Enforcement policies

- 1 Prevention
 - 1 Avoid conditions that facilitate tacit collusion
 - 2 Develop guidelines for firms to avoid prosecution
- 2 Private enforcement to assist public enforcement

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

- 1 Reduce the availability of price and sales information that facilitates tacit collusion
 - 1 Restrict the exchange of detailed price and sales data through a trade association.
 - 2 Prohibit price transparency that is proprietary to sellers or is of minimal value to buyers.
- 2 Prohibit mergers that create a market structure that facilitates tacit collusion (coordinated effects)
- 3 Competition authority reviews government policies involving prices and other sensitive information

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

Prohibit price transparency that is proprietary to sellers or is of minimal value to buyers.

- Norway gasoline - prohibit online "recommended price" that is no value to buyers
- Data subscription services that are (effectively) only available to sellers
 - Agri Stats (U.S.)
 - Informed Sources (Australia)

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

Private litigation against producers of broiler chicken, pork, turkey (U.S., 2021)

- Agri Stats produces industry reports to subscribers
 - Suppliers subscribe and provide data.
 - Only suppliers who provide data can receive the report.
 - Suppliers have stated that the reports provide them knowledge of their competitors' production plans.

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

Allegations of plaintiffs (pork)

- Public statements were used to coordinate supply reductions
 - Smithfield Foods earnings call: “Our 3% [cut in supply] will not fix the hog industry. Somebody else has got to do something. We cut 13%. The first 10% didn’t fix it.”
- Agri Stats was used to monitor for compliance
 - “Defendants exchanged detailed, competitively sensitive, and closely guarded non-public information about prices, capacity, sales volume, and demand through their co-conspirator, Defendant Agri Stats.”

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

Informed Sources (Australia, 2015)

- Informed Sources provided a paid subscription service to retail gasoline companies.
 - Subscribers provided pricing data at frequent, regular intervals.
 - Subscribers received all subscribers' reported data.
- ACCC: Informed Sources facilitated coordinated pricing as a near real time communication device.
 - A retailer can raise price and observe the real-time response of competitors.
 - If the price increase is not matched, it can be quickly withdrawn.
- Coles Express consented not to renew its contract with Informed Sources and not to enter into any similar information sharing service agreement.

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

Prohibit mergers that create a market structure that facilitates tacit collusion (coordinated effects)

- Challenge is quantifying coordinated effects.
- If a merger (with possible coordinated effects) is approved, monitor the post-merger market for tacit collusion.
 - Airlines, steel – mergers were allowed and then firms engaged in tacit collusion
 - “The consolidation we have undergone encourages a change in behavior to match the industry structure.”
 - Public announcements to coordinate on limiting supply and raising prices.
 - Firms should be threatened with divestiture and fines if they engage in post-merger tacit collusion.

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

Competition authority should review government policies involving prices and other sensitive information.

- Government-mandated collection and dissemination of prices
- Government-mandated price caps

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

Danish Ready-Mixed Concrete (Albæk, Møllgaard, and Overgaard, JIE, 2003)

- Government policy
 - Suppliers were required to report transaction prices to the Danish competition authority.
 - Published average price and average of the five lowest prices for the first month of each quarter (with a three month lag).
- Impact on price levels
 - Prices increased by 15-20% in the first year of the publication of prices.
 - Cost changes could not explain the price increase.
- Impact on price variation
 - Prior to the mandate, prices varied by as much as 30% from the average price.
 - After the mandate, price variation was only 2-4%.

Enforcement policies

Prevention: Avoid conditions that facilitate tacit collusion

- Price caps can provide a focal point for tacit collusion
 - Interest rates - U.S. (Knittel and Stango, AER, 2003)
 - Fruits and vegetables - Greece (Genakos, Koutroumpis, and Pagliero, JIE, 2018)
- Greece: maximum markup regulation for fruits and vegetables
 - 8-12% for the wholesale market, 20-35% for supermarkets
 - Repeal of maximum markup regulation *lowered* prices - 6% decline in average retail prices for affected products compared to unaffected products.

Enforcement policies

Prevention: Develop guidelines for conduct

- Guidelines
 - allow firms, who do not intend to collude, to avoid a costly and disruptive investigation.
 - may deter some firms from engaging in tacit collusion due to the heightened chance of prosecution.
- **Recommended Guideline:** Firms should avoid advance price announcements unless the firms can establish them to be useful to consumers.
- **Recommended Guideline:** Firms should avoid public announcements that refer to rival firms' conduct.
- **Recommended Guideline:** Firms should avoid privately sharing prices.
 - Clear anticompetitive risk with few well-established procompetitive benefits.

Enforcement policies

Private enforcement

Importance of private litigation in the United States

- Following up on government convictions, private damages increase corporate financial penalties.
- For cases not pursued by the government, private litigation shuts down collusion by initiating cases.
 - Of 60 large private antitrust suits (in the U.S.), 40% of them were initiated by the plaintiffs (Lande and Davis, 2013)
- Current U.S. enforcement
 - Explicit collusion is prosecuted by the DOJ, typically using the leniency program.
 - Tacit collusion is largely left to private litigants.

Enforcement policies

Private enforcement

- Competition authority has limited capacity and is more concerned with the *likelihood of a conviction* (career concerns) than the prospect of high penalties.
 - Implication: Less inclined to take on risky tacit collusion cases.
- Private litigants and plaintiff lawyers are more concerned with *expected profit*, and the legal community has almost unlimited capacity.
 - Implication: Willing to take on risky tacit collusion cases as long as the potential damages are large enough.
- Enforcement is much stronger with private enforcers who can bring cases.

Concluding Remarks

Feb 1982: Phone call between Robert Crandall (CEO, American Airlines) and Howard Putnam (CEO, Braniff Airlines)

- **Crandall:** I think it's dumb as hell for Christ's sake, all right, to sit here and pound the **** out of each other and neither one of us making a ****ing dime.
- **Putnam:** Do you have a suggestion for me?
- **Crandall:** Yes. I have a suggestion for you. Raise your goddamn fares twenty percent. I'll raise mine the next morning. You'll make more money and I will too.
- **Putnam:** We can't talk about pricing.
- **Crandall:** Oh bull ****, Howard. We can talk about any goddamn thing we want to talk about.

Concluding Remarks

- Airlines have moved from explicit to tacit means of collusion by using
 - advance price announcements (as a means to coordinate on raising prices)
 - earnings calls (as a means to coordinate on restricting capacities)
- Tacit collusion can be expected to grow in use.
 - Prior to enforcing a competition law, there are likely to be many cartels practicing explicit collusion.
 - As a competition authority becomes more effective, colluding firms may adopt less explicit practices.
 - Efficacy of a leniency program may cause firms to switch to tacit collusion.