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Contracts, Combinations, and Conspiracies

The Sherman Act of 1890 outlaws any "contract, combination, . . . or conspiracy, in restraint of trade or commerce" in the United States. Translated from the legalese, this means that firms in America cannot lawfully join with competitors to form a **cartel** to raise prices above the competitive level.[1] Because successful cartels have the potential for great profits, there are strong incentives to form them. Usually, however, if the government discourages them, or even if it does not actively encourage them, cartels are difficult to keep together. This is because a cartel must meet four requirements if it is to be successful:

1. *Share.* It must control a large share of actual and potential output, so that other producers of the good it sells will not be able to depress prices by expanding output significantly.
2. *Substitutes.* Consumers must regard alternatives to the cartel's product as being relatively poor substitutes, and these substitutes must be few in number and relatively inelastic in supply; such factors all reduce the elasticity of demand facing the cartel, helping it to raise prices.
3. *Stability.* There must be very few outside factors that tend to disturb cost or demand conditions in the industry, so that the

[1] Despite this, many American agricultural producers are legally permitted to collectively agree to raise their prices on products ranging from almonds to oranges. They do so under the umbrella of "marketing orders," which effectively are cartels approved and enforced by the U.S. Department of Agriculture.

cartel is not continually having to make new price and output decisions in response to changing conditions.

4. *Solidarity.* It must be relatively easy for the cartel to maintain solidarity by identifying and punishing members who cheat on the cartel agreement with price cuts.

All successful cartels have been able to meet these requirements to some extent. Conversely, it has been a breakdown in one or more of these factors that has been the downfall of each of them that has failed. In general, successful cartels are international in character. They are either effectively beyond (or exempt from) national laws forbidding them, or are encouraged by, or comprised of, governments themselves.

One of the most famous and successful cartels has been the Organization of Petroleum Exporting Countries (OPEC). Formed in 1960, its members have included many major oil producing countries, such as Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, and Venezuela. OPEC had little impact on the price of oil until the outbreak of the Middle East war in 1973 provided the impetus for cohesive action. Saudi Arabia, Kuwait, and several other Arab nations sharply reduced their production of oil; because the demand curve for oil is downward sloping, this reduction in supply pushed oil prices—and thus the profits of OPEC members—up sharply. On January 1, 1973, one could buy Saudi Arabian crude oil at $2.12 per barrel. Within one year, the price of crude had risen to $7.61 per barrel; by 1975, to $10.50; and by the end of the decade, the price of oil was $35 per barrel and rising.

Several forces combined to send oil prices in the opposite direction by the mid-1980s. At least partly in response to the high prices charged by OPEC, worldwide output of oil from other sources began to grow, led by rising production on Alaska's North Slope and by aggressive marketing of the oil flowing out of the Norwegian and British fields located in the North Sea. Eventually, this additional production significantly reduced the market share controlled by OPEC members and thus helped reduce their stranglehold on price.

The most important problem for OPEC, however, as for so many cartels, has been cheating on the cartel agreement by its members. Whenever there are numerous firms or countries in a cartel

arrangement, there will always be some that are unhappy with the situation, perhaps because they think they are not getting enough of the profits. They cheat by charging a slightly lower price than the one stipulated by the cartel, a move that will result in a very large increase in the cheater's revenues (and thus profits). The potential for cheating is a constant threat to a cartel's existence, and when enough of a cartel's members try to cheat, the cartel breaks up.

In the case of OPEC, war between the member nations of Iran and Iraq during the 1980s precipitated a major outbreak of cheating, as those two nations expanded production beyond their quotas, using the extra sales to finance heavy military expenditures. The price of crude oil plunged to $10 per barrel in 1986, when cheating on output quotas spread throughout the cartel. OPEC member Saudi Arabia, the world's largest producer of crude, finally restored order when it threatened to double its output if other OPEC members did not adhere to quotas. Although there have been short-lived price spikes since then, crude oil prices typically have hovered around $25-30 per barrel; after adjusting for inflation, this is 60 percent cheaper than in 1980.

The perils faced by cartels are also illustrated in the diamond market, where DeBeers Consolidated Mines, the famous diamond company, controls 65 percent of the world supply. Although DeBeers itself produces only about 35 percent of the world's diamond output, it typically has directed the marketing of another 30 percent through a cartel called the Diamond Trading Company, or DTC. (The cartel was for many years known as the Central Selling Organization.) The DTC has long restricted the sale of rough-cut diamonds to keep their prices at levels that maximize the profits of its members. After many years of profitable success, however, the diamond cartel hit rough times. Cartel profits spurred searches for new sources of supply, and major discoveries were made in Australia and Canada. Moreover, Russia, which accounted for about one-fourth of DTC's output, became a chronic cheater on DTC rules by permitting diamonds to "leak" into international markets. The combined effect of these forces has been substantial. In 1980, the wholesale price of investment-grade D-flawless diamonds—considered the most reliable measure of market conditions in the industry—was about $75,000 per carat. After adjusting for inflation, D-flawless diamonds recently have been worth less than half that amount.

Russians have had troubles with their own historically successful cartel, the one that controls—or controlled—the supply of fine caviar. The principal source of some of the world's best caviar is the Volga River Delta, where Kazakhstan and Russia (both former members of the Soviet Union) share a border at the northern end of the Caspian Sea. Both the temperature and salinity of the water in the Delta make it the ideal spawning ground for sturgeon, the long-nosed prehistoric fish whose eggs have for centuries been viewed as the world's finest caviar. Originally, the Russian czars and czarinas ran the show, eating what they wanted of the harvest, and then controlling the remaining supplies to their advantage.

Once the Bolsheviks disposed of the Romanovs in 1917, they quickly saw the potential profits to be had from cornering the market on caviar. Thus, for the next 75 years or so, a Soviet state-dominated cartel controlled the nation's caviar business from top to bottom. Although the Soviet sturgeon were considerate enough to produce an annual catch of some 2,000 tons of caviar, the communist cartel allowed only 150 tons out of the country. As a result, a state-supplied kilogram (2.2 pounds) of top-grade black caviar costing $5 or less on the Moscow black market, commanded $1000 or more in New York.

The demise of the Soviet Union spawned trouble, however, for competition reared its ugly head. As it turns out, the largest sturgeon fisheries fell under the jurisdictions of two different autonomous republics—Russia and Kazakhstan—each of which wanted to own and operate its own lucrative caviar business. Moreover, a variety of individuals, including enterprising Caspian Sea fishermen from these republics, staked private claims, and in some cases set up their own export channels (behavior officially termed "black market piracy"). The effect of this capitalist behavior was a 20-percent drop in the official caviar export price during the first year of autonomy, plus an escalation of competition since then.

Caviar consumers were pleased at this turn of events, but old-line suppliers were not quite so happy. "We don't need this kind of competition," complained one. "All of these small rivals mean that prices will fall and the market will be ripped apart. This is a delicacy—we need to keep it elite." Recent years have seen a sharp upswing in world caviar prices, although not because Russia and Kazakhstan have managed to get competition under control.

Instead, it turns out that pollution from leftover Soviet industry in the area has helped to sharply reduce the region's sturgeon population. The resulting decline in the amount of harvestable caviar drove costs and prices up, and profits even lower. Adding insult to injury, firms in America (whose costs are not affected by the Soviet pollution) have entered the caviar market in response to the higher prices, intensifying the price-cost squeeze that the former Soviet republics are suffering. And so, just as Soviet citizens found that communism wasn't all that it was cracked up to be, it appears some of them are now learning that capitalism may be more than they bargained for—but perhaps no less than Karl Marx warned them about.

Oddly enough, despite the Sherman Act and other tough antitrust laws, one of the longest-running cartels can be found right here in the United States. The National Collegiate Athletic Association (NCAA), which operates under a special exemption from the antitrust laws, sets the rules not only for how intercollegiate sports competition takes place but also for how athletes are recruited and paid. And under NCAA rules, college athletes are not paid much. Indeed, as a practical matter, compensation for collegiate athletes is limited to the cost of room, board, books, and tuition at their university or college, an amount that typically ranges from $20,000 to $40,000 per year. Now, this might sound like pretty good pay to you, and, indeed, for a field hockey player or college wrestler, it probably is. But for the so-called "revenue sports" of college athletics, most notably football and basketball, such sums amount to a pittance compared to what these athletes would bring on the open market. (This, of course, is exactly the point: universities are joined together in the NCAA in part simply to keep down the costs of college athletics.) In the case of football, this issue has been studied quite intensively, so we actually have a good idea of what top college players are worth. Over a four-year college career, a player who ends up getting drafted by a professional team is underpaid by about $2 million. And while lesser players are underpaid by lesser amounts, numbers like these make it clear that, despite encouraging open competition on college playing fields, when it comes to competition in the marketplace, the NCAA is guilty of unsportsmanlike conduct.

DISCUSSION QUESTIONS

1. Why are all cartels inherently unstable?
2. Would it be easier to form a cartel in a market with many producers or one with very few producers?
3. What happens to the producers of caviar made from other types of fish eggs (such as salmon, whitefish, and trout) when the price of the finest sturgeon caviar changes? Would these firms ever have an incentive to help the governments of Russia and Kazakhstan reestablish the caviar cartel?
4. If the members of your class were to attempt to form a study-reduction cartel in which everyone agreed to study less, which individuals would have the greatest to gain from the cartel? Which ones would have the greatest incentive to cheat on the cartel?