Chapter 13: U.S. Government Prosecutions

The United States Department of Justice (DOJ) began investigating allegations of price fixing in the market for lysine in late 1992.[1] Tape recordings made by an informant of conversations among the lysine conspirators contained language that suggested that parallel conspiracies were ongoing in the citric acid and corn sweeteners industries. Separately, information about possible price fixing in the markets for bulk vitamins came to the attention of the DOJ. In 1995-1997 four grand juries were formed to consider the evidence held by the DOJ. Three of the four grand juries determined that there was probable cause for indicting certain companies and individuals for criminal violations of the Sherman Antitrust Act. The DOJ negotiated guilty pleas with a large number of companies and key managers of those companies. However, three executives who refused to such a plea bargain were tried and found guilty in a 1998 federal court. In the late 1990s, officials in an unprecedented number of countries piggybacked on the DOJ's indictments and brought charges against many of the same defendants for violations of their competition laws.

The purpose of this chapter is to recount and assess the investigations and prosecutions of three alleged price fixing schemes by the DOJ and its investigative arm, the FBI: lysine, citric acid, and vitamins. The following chapters 14 and 15 will consider enforcement actions overseas and civil suits, respectively, against the same set of defendants.

The Antitrust Division

The Antitrust Division is an agency of the U.S. Department of Justice. The head of the division, the Assistant Attorney General for Antitrust, is nominated by the President, confirmed by the Senate, and reports directly to the Attorney General. The Division is relatively small as federal agencies go, with less than 1000 employees, but it has formidable legal powers to enforce the Sherman and Clayton Acts. It is in effect the sole federal agency

[1] Source citations can be found in Connor (2000).

empowered to bring criminal indictments for alleged antitrust violations.[2] The Antitrust Division has a cadre of experienced career lawyers and economists serving in positions just below the political appointees, aided by a select group of younger attorneys, many of whom spend a number of years with the Division before leaving for positions at private law firms. When a possible criminal violation of the nation's antitrust laws come to its attention, the Federal Bureau of Investigation (FBI) assists the Division by collecting information from witnesses and other sources.

Beginning in the early 1980s, the Antitrust Division experienced deep cuts in the size of its professional staff of lawyers and economists and in the real size of its budget (Preston and Connor 1992). Although none of the formal authority of the Antitrust Division was diminished, the cuts imposed by the Reagan administration were concrete indicators of a desire for less aggressive enforcement of many areas of the federal antitrust laws. By the late 1980s during the Bush administration, the Division's resources had stabilized and the pace of enforcement had quickened somewhat since the early part of the decade. While the DOJ had never departed from its formal commitment to rigorous enforcement of the price fixing laws, relatively few important cartel cases had been launched since the electrical-equipment conspiracy cases of 1960.

In 1992 Anne K. Bingaman was appointed Assistant Attorney General for Antitrust in the new Clinton Administration. Bingaman often said that she wanted to restore respect for the antitrust laws. She was perceived as more populist and activist than her two immediate predecessors and more prone to pursue difficult prosecutions. In retrospect, Bingaman's tenure may be seen as a watershed in antitrust enforcement. As pointed out by Eleanor Fox of New York University's law school, the main shift in priorities in the 1990s was a greater emphasis in global antitrust enforcement (*Washington Post* March 30, 1997: C1).

However, as the DOJ learned to its dismay in 1994, the prosecution of global cartels is fraught with practical difficulties. One of Bingaman's first decisions was to approve the indictment of General Electric and De Beers Consolidated for global price fixing in the market for industrial diamonds. De Beers, a South African company, did not show up for the trial that began in November 1994. Moreover, key witnesses in France and important documents located abroad were beyond the reach of U.S. subpoenas. After the DOJ presented its case the presiding judge dismissed the case.

Another challenge to global cartel prosecutions was some legal uncertainty about conspiracies that took place entirely offshore. U.S. legal

[2] Technically, U.S. Attorneys are also empowered, but they almost always seek the Division's approval to bring criminal antitrust cases.

authorities had always maintained that offshore conspiracies were actionable if they affected U.S. trade and commerce. However, this extraterritoriality theory was placed in doubt in the Japanese thermal fax paper case (Daniel *et al.* 1997). It was only after in March 1997 that this decision was overturned re-affirming the offshore reach of the Sherman Act.

Thus, when the lysine investigation turned up solid evidence of international price fixing, the DOJ may well have had some trepidation about leaping forward into another risky global venture. After the major and humiliating loss of the industrial diamonds case, it would be vitally important to win lysine convictions in order to restore the Division's reputation.

The Biggest Mole Ever Seen

The lysine investigation was the result of serendipity.

More than a year after ADM's Decatur plant had begun manufacturing lysine, the company continued to experience production problems. Large vats in which the dextrose mixture was being fermented became contaminated from time to time. Each time a vat was dumped, ADM incurred unrecoverable costs of millions of dollars. These episodes had been more frequent in the first year of operation but had continued sporadically in the summer of 1992. In late October 1992, Mark Whitacre went to Michael Andreas and told him that he suspected that an ADM employee was sabotaging the fermenters. Moreover, Whitacre further claimed that a Mr. Fujiwara, an employee of Ajinomoto, had telephoned him to inform him that Ajinomoto had placed a mole inside ADM's plant. The mole would continue to sabotage the lysine production process unless $6 to $10 million was wired to Fujiwara's Swiss bank account. In return for the money, the saboteur would stop the mole and provide ADM with Ajinomoto microbes that were resistant to contamination (Eichenwald 1996).

That Michael Andreas readily believed that its arch rival Ajinomoto was capable of such wicked industrial espionage is rather revealing of ADM's perception of business methods in the industry. Andreas acted decisively. After seeking his father's counsel, Michael almost immediately telephoned ADM's representative in Europe, his cousin G. Allen Andreas, and asked the executive to inform a CIA acquaintance in London about the international extortion demand (Eichenwald 2000). Andreas later explained that he believed that if he had the cooperation of the CIA, then ADM would be able to make a payment legally to the extortionist. The CIA informed ADM that counter-espionage is the responsibility of the FBI. In early November, the extortion allegation was turned over to FBI Agent Brian Shepard.

Shepard, 43, had served more than 20 years in the FBI and had been in charge of the three-person FBI office in Decatur, Illinois since 1983 (Tr. 2805-2837). Investigations of sabotage and price fixing allegations would be far from run-of-the-mill activities for the FBI in a small Midwestern town like Decatur. Indeed, Shepard initially had no idea whether price fixing was a federal crime or whether the FBI should get involved (Eichenwald 2000). Eventually, Shepard would be able to rely on a large team of additional agents and attorneys from the DOJ for guidance, but at the beginning some of the investigative techniques were improvised.

On November 4, 1992, at Michael Andreas' suggestion, Shepard and two other FBI agents interviewed Andreas at this home. During the interview, Andreas confirmed that he had indirectly alerted the CIA to the so-called extortion attempt. Andreas had also contacted a lawyer in Europe who knew experts in industrial sabotage (Tr. 2805-2810). At one point during the interview Andreas volunteered that ADM had been meeting with some Japanese lysine manufacturers because ADM was trying to break into the industry.

On the same day, Agent Shepard interviewed Mark Whitacre in the FBI's Decatur office. In a departure from normal procedures, ADM's Director of Security was also allowed to be present. During the interview, Whitacre confirmed his story about the alleged extortion demand, which he said had been made in a telephone call to his Decatur home. Whitacre did not mention his role in the ongoing lysine conspiracy. [3]

Whitacre's motives for concocting the sabotage/extortion tale have been the subject of much speculation. One leading candidate suggests that Whitacre, who was depressed at times and habitually loose with the truth, made up the story in order to draw attention away from his own incompetence. However, his position at ADM was secure. In October 1992 Whitacre was about to get a raise and promotion to corporate vice president at ADM. Whitacre was well regarded by ADM's management. Dwayne Andreas would later say: "We trusted him completely – a good man, a good salesman for us" (Carlson 1996). Moreover, the frequency of contamination incidents had slowed significantly since 1991. Within ADM contamination incidents were generally viewed as regrettable but inevitable in the early stages of production of a new fermentation product.

A second explanation seems more cogent. Whitacre had already begun embezzling funds from ADM, and the extortion payment would fit in well with those plans. He could take the money, claim to pay the extortionist, and pretend to spend the money on new fermentation technology.

[3] In an famous article he wrote for Fortune magazine in 1995, Whitacre alleged that Michael Andreas ordered him not to reveal anything about the lysine conspiracy.

What neither Whitacre nor Andreas counted on was the CIA's decision to alert the FBI.

At about 8:00 p.m. on November 5, 1992, FBI Agent Shepard showed up at Whitacre's large estate. Shepard had come to install a device on Whitacre's telephone that would record the origin of incoming calls, a fancy version of "caller ID." Instead of a quick visit, Whitacre asked to talk to Shepard in his car. Whitacre had by now realized that the device would prove that he had been lying about the espionage and extortion attempt. For the next five hours, Shepard would listen to a series of the most incredible and bizarre tales in his long career. Mark Whitacre was about to become the highest-ranking executive mole in the history of the FBI (Tr. 2813-2817).

Mark Whitacre was only 35 years old when he began confessing to Brian Shepard (Lieber 2000). By all accounts, Whitacre was talkative, engaging, brilliant, hard working, and prone to exaggeration and to gratuitous departures from the truth. After fast-track positions with Ralston Purina and Degussa in the 1980s, ADM hired Whitacre in 1989 to become manager of its fledgling Bioproducts Division, for which ADM was already building a state-of-the-art lysine manufacturing plant. Whitacre's job would be to oversee the plant's startup, work out its initial production bugs, and market the lysine. Large investments – more than $1 billion – would be made by ADM to expand into additional biotechnology products in the early 1990s. By 1995, Whitacre had been named President of the Bioproducts Division and ADM corporate Vice President, would be earning a salary of $320,000 per year, and would be supervising more than 120 employees. Whitacre was a rising star at ADM.

Like many whistle-blowers, Whitacre would turn out to be an unreliable witness. While many of his allegations of unethical behavior at ADM would be corroborated, he also had a tendency to spin tales that were pure fantasy. One of his counterparts at ADM gave credible court testimony about some of these stories. Later, it became obvious that Whitacre relished his FBI role of "secret agent." During 1993 Whitacre revealed several of ADM's trade secrets to an international business consultant who was not employed by ADM; the secrets included lysine production targets, production costs, customer lists, and division earnings reports (Tr. 4360-4375). That consultant sold the information to one of ADM's lysine rivals. Whitacre later claimed that he was a victim of bipolar disease, which might explain some of his bizarre behavior.

November 1992 was a pivotal month in Mark Whitacre's life. On November 1st, he was officially appointed President of ADM's Bioproducts Division. In that same week his boss Michael Andreas was taking action to set up a payment of millions of dollars to an extortionist that would end the sabotage of ADM's lysine production processes. On November 4th,

local FBI agent Brian Shepard and two other agents visited ADM headquarters during the day and Michael Andreas' home that night to begin the extortion investigation (Tr. 715-716). On November 5, 1992, Mark Whitacre was confronted at work by ADM's general counsel and its security chief about inconsistencies in Whitacre's extortion tale. (ADM had installed sophisticated security devices on both of Whitacre's home phone lines, part of a company-wide system thought to be necessary to prevent rival grain-trading companies from gaining illegal access to commercially important information. It is likely that the company had been unable to find any incoming calls from the phantom extortionist.) Faced with this evidence, Whitacre recanted (Tr. 5640-5650). For more than a month afterwards, ADM did not inform the FBI that the suspected extortion was a hoax. Instead, ADM simply ceased cooperating with the FBI's investigation (Lieber 2000). Of course, Michael Andreas knew about Whitacre's flip-flop, yet for three years he did nothing to punish Whitacre.[4] He did nothing because he could not. Whitacre knew too much.

So on the night of November 5, 1992 Whitacre spilled the beans about the lysine conspiracy to FBI Agent Shepard. Whitacre, fearing that his house was bugged by his employer and realizing that no telephone evidence of the extortion story will be forthcoming, went to Shepard's car and unloaded a series of accusations that were scarcely believable to the agent (Tr. 2813-2817). Over the course of the five-hour confession, Whitacre laid out a long list of illegal activities and practices at ADM. Among the allegations that have proven accurate were the lysine cartel, the citric acid cartel, and the attempted theft of a lysine biotechnology by ADM officers. However, many of Whitacre's allegations about illegal or unethical behavior by the Andreas' or other ADM officers have not been corroborated. No indictments were made on Whitacre's more colorful allegations, though in some cases government may have been prevented from doing so because the statute of limitations had been exceeded.[5]

Whitacre's tendency to mix facts with fantasy called into question his motivation for cooperating with the FBI. Creating diversions to cover up his embezzlements seems likely to have been one of his motives. At various times he demanded money from the FBI for his services, at one time demanding 10% of ADM's fines as a bounty (Tr. 3389). Whitacre's unreliability became an issue at his criminal trial in 1988. Several commentators have suggested that Whitacre was naive and out of his depth at

4 In a 1996 interview, Dwayne Andreas confirmed that the company had been aware of Whitacre's embezzlement of ADM for three years (Carlson 1996). Failing to inform the authorities about this federal crime is in itself a crime. Failing to stop it is gross mismanagement.

5 The attempted thefts of technology (bacitracin and lysine) and obstruction of justice by ADM's director of security Mark Cheviron are three examples (Tr. 3383-3388).

ADM, that it was he who was subtly drawn into an existing web of dishonesty at the higher echelons of the company. In the end, Mark Whitacre's motivations remain a mystery wrapped in controversy. In the view of one newspaper columnist who closely followed the case:

> "Mark Whitacre . . . streaked across the business world like a meteor – spectacular and mysterious but ultimately crashing and burning" (*Chicago Tribune* 9/17/98).

Enter the FBI

The FBI wanted proof that ADM was engaging in illegal price fixing with three Asian manufacturers of lysine. To do so eventually a team of more than ten investigators would be assembled to surveil Whitacre. Three nights later Shepard and another agent interviewed Whitacre about the price fixing allegations. For the first time, the FBI got some verifiable facts from Whitacre. He gave them specific dates of four meetings between ADM and its Asian rivals in the lysine market. Moreover, Whitacre handed over copies of expense reports that supported the dates, and he showed the agents the lysine department's profit statements that confirmed the increase in lysine prices and profits in September and October. Finally, Whitacre made a telephone call to a co-conspirator in Tokyo openly discussing their lysine price fixing. Agent Shepard recorded the conversation on tape (Tr. 2834-2835 and 716-718). With this evidence, the FBI must have concluded that there was sufficient probable cause to open an official investigation.

The lysine investigation, later dubbed "Harvest King," did not at first go smoothly.[6] Within days of offering his proof to the FBI, Whitacre too had ceased to cooperate with the FBI, giving a number of patently incredible excuses. For four months after the November 9th interview and taping session, Whitacre became increasingly agitated about his role. On the night of November 16th, Whitacre called Shepard and complained that the FBI was "destroying him" and that he wanted to end his role as an FBI mole (Eichenwald 1996). However, his admissions of illegal behavior gave the FBI considerable leverage over Whitacre. Moreover, by this time the FBI too had begun to doubt that there was an extortionist, so on December 21, 1992 Whitacre was required to take a polygraph test. Whitacre failed the test miserably. He admitted that day that the whole extortion story was

[6] Identifying cases with obscure titles is standard practice in law enforcement so as to avoid revealing a secret investigation to other parties. Was Harvest King a sly reference to Dwayne Andreas?

a hoax intended to explain away the start-up contamination episodes (Tr. 2864-2866).

Despite Whitacre's unsteadiness, the FBI had Whitacre sign a contract in January 1993 to serve as a "cooperating witness" in the lysine investigation. Signing that agreement would prove to be a major blunder for Whitacre, who naively did not hire a personal attorney. Although the agreement granted him conditional immunity from prosecution, Whitacre was immunized only from November 5th onwards. Because the FBI knew of illegal meetings prior to that date, the FBI had a powerful tool to force Whitacre's continuing cooperation. In January 1995 Whitacre had hidden from the FBI a January 1993 conspiracy meeting with two Japanese lysine makers, but the FBI found out about it. As a result, Whitacre agreed once again to begin taping conspiracy-related events beginning in March 1993.

Mark Whitacre turned in to the FBI more than 100 audio tapes that he personally recorded from March 1993 to mid-1995. Many of these were telephone conversations with Japanese, Korean, or French co-conspirators. Others were made at formal price fixing meetings around the world or at informal meetings of fellow ADM employees. In addition, where local laws allowed it, four formal meetings of the lysine cartel were videotaped in hotels by FBI agents in adjacent quarters. All these recordings would become the "smoking gun" evidence that secured guilty pleas and convictions of the lysine conspirators, both corporate and individual.

By the end of 1993, the FBI judged that there was sufficient evidence to prosecute ADM, its officers, and others for fixing the price of lysine. However, Whitacre's taping continued for more than a year longer because from time to time there were statements about price fixing in other markets, notably citric acid and corn sweeteners.

Besides Whitacre's propensity for manufacturing stories, his embezzlement of ADM funds made him highly unsuitable as a witness for prosecutors. Most of the embezzlement occurred by means of cash kickbacks from vendors to ADM's Bioproducts Division. In some cases, Whitacre forged the signature of ADM's president. It is surprising that a company with such a good reputation for management quality would have such loose accounting controls. Whitacre's embezzlement of ADM began in April 1991. To facilitate the theft, he opened two bank accounts on the Cayman Islands in August 1991 and a Swiss account in January 1993 (Tr. 4872). The schemes involved phony invoices for new fermentation technologies for the Bioproducts Division or kickbacks from vendors for legitimate services. All told, Whitacre stole almost $10 million, with some help from three salesmen in the Bioproducts Division working in Mexico,

Germany, and Atlanta.[7] Because Whitacre lost his federal immunity, he was made a defendant together with Michael Andreas and Terrance Wilson in a 1998 criminal trial in Chicago. This was a stroke of luck for prosecutors because Whitacre could not be compelled to testify for the prosecutors and prosecutors had realized for some time that he would be unconvincing on the stand.

Whitacre, the government's star whistle-blower was convicted and sentenced to 30 months in prison for lysine price fixing. Federal whistle blowers beware: only those willing to keep their whistles clean need apply.

Grand Juries

Criminal federal trials are heard by "petit juries" of twelve or fewer citizens in open court. However, grand juries, so-called because they have up to 23 citizens, operate under different rules. Although loosely supervised by judges, they are formed by federal prosecutors to assist in bringing indictments (see Chapter 3). The lysine grand jury was established in Chicago about June 1995, just a few weeks before the FBI raided the headquarters of the lysine sellers and companies selling citric acid and corn sweeteners. The government's lysine investigation was initially headed by James M. Griffin, chief of the DOJ's Chicago. It appears that the lysine investigation and subsequent trial was closely supervised by the Assistant and Deputy Assistant Attorneys General of the DOJ. Not only was special care being taken to ensure aggressive prosecution, but the arrangements signaled the political sensitivity of prosecuting Dwayne Andreas' company.

The lysine grand jury in Chicago never had to vote to indict the five companies in the cartel because prosecutors arrived at a negotiated settlement. However, four individuals failed to arrive at such a settlement. On December 3, 1996, the jury handed down criminal indictments for price fixing against four men: Michael Andreas, Terrance Wilson, Mark Whitacre, and Kazutoshi Yamada.

---

[7] The FBI first became aware of the fraud by Whitacre in August 1995, the same month Whitacre was fired by ADM (Tr. 721). On October 10, 1997 Whitacre pleaded guilty to fraud, embezzlement, and tax evasion. In 1998 Mark Whitacre was sentenced to nine years in federal prison and required to pay $11.4 million in restitution. At his sentencing the judge excoriated Whitacre for his "socio-pathic behavior" and opined that he was motivated by "garden-variety venality and greed."

The FBI Raids

Shortly after the lysine grand jury was formed, the FBI was granted search warrants by an Illinois magistrate to search parts of the offices of many agribusiness companies that made or sold lysine, citric acid, or corn sweeteners. Subpoenas were also issued to be served to knowledgeable individuals to compel them to testify about possible price fixing in the three markets.

The multiple raids were carefully planned well in advance of the chosen night. Mark Whitacre had snooped around to find a night when all the principal targets would not be traveling on business (Eichenwald 2000). On the night of June 27, 1995, in a massive show of force some 70 FBI agents arrived at ADM's corporate headquarters in Decatur and began removing evidence in the offices of Michael Andreas, Terrance Wilson, Mark Whitacre, and several of their lieutenants. Other agents went to the homes of most of the ADM officers who had anything to do with the three products, served the subpoenas, and began interviewing the executives on the spot. Local residents of Decatur took to referring to the episode as "Gestapo Night."

From the audio and video tapes in the hands of the FBI, Michael Andreas and Terrence Wilson had already been identified as the chief perpetrators of ADM's price fixing activities, so they received special treatment that night. For Andreas at his home that evening and Wilson at his country club, the FBI played excerpts of incriminating taped conversations. Andreas listened calmly to the recordings but responded that they didn't prove anything. The FBI offered Andreas a chance to reduce his sentence by cooperating, but that offer was summarily rejected.

The ADM executives that were interviewed that night remained tight-lipped, yielding no useful information for the prosecution. However, the files in ADM's headquarters did yield documents that contained useful information. Besides travel and telephone records that would confirm attendance at conspiracy meetings, ADM's files contain the conspirator's "score sheets" kept by the lysine and citric acid associations. The score sheets display monthly sales data, both "budgeted" (i.e., goals of the conspirators) and actual, for each of the members of the cartel. These score sheets were the primary decision-making aid for the conspirators at their quarterly meetings. They provided confirmation that the cartels attempted to monitor their volume agreements and gathered the information necessary to implement year-end compensation schemes. Sharing information in this way may in itself constitute a crime, but shared for the purpose of detecting cheating makes it clearly a violation.

FBI raids continued that night and over the following days. The U.S. offices of at least nine other multinational agribusiness companies were affected. Many cartons of documents were removed, duplicated,

stamped, catalogued, and copies returned to the companies. Most of the participants in the lysine meetings other than ADM took copious notes at the meetings and prepared memoranda that were circulated to their supervisors. These minutes were highly damaging to the defendants, and might have proved sufficient to convict the price fixers even without the taped evidence. In the lysine criminal trial alone, the DOJ turned over more than two million documents to defense counsel prior to the start of the trial.

As the FBI raids became known a great deal of unfavorable publicity was generated for ADM and the other companies. On June 29th and following days, virtually all major newspapers and news organizations reported the news. Within a month leaks from the investigation suggested that suspicious documents had been obtained by the FBI that supported the existence of a lysine cartel. For ADM, the most prominent of the firms under suspicion, the immediate financial impact was enormous. From the day of the raid until October 1995 as the unfavorable speculation mounted, its stock market price fell by 24%, or by a market value of $1.4 billion.

The response of ADM and most of the affected companies to the searches was similar. They remained silent or issued brief press releases denying guilt and immediately hired lots of legal help. ADM's press release was two sentences long. Several law firms were hired for the company's management and for individual executives. Later, even the boards of directors hired separate legal representation. By September, more than 20 civil suits had been filed against ADM seeking compensation for buyers of lysine, citric acid, and corn sweeteners.

In the weeks after the raid, only one company failed to follow the standard scenario. Sewon America issued a statement saying that it had been coerced by its much larger Japanese rivals in the lysine business. This was the first tiny crack in the dam of solidarity that had been erected by the five lysine conspirators.

Lysine Guilty Pleas

After the FBI searched the offices of ADM and three other lysine sellers in June 1995, prosecutors from the U.S. District Attorney's office and the DOJ's Antitrust Division office presented the evidence obtained to the lysine grand jury in Chicago. While the evidence from the tapes was strong and the conspiracy documents provided useful corroboration, for well over a year the prosecutors had grave difficulties assembling sufficient evidence to bring *criminal* price fixing indictments against the five companies and key executives who operated the cartel. Criminal price fixing charges require that the prosecution prove "beyond a reasonable doubt" that the defendants knowingly and intentionally conspired to fix or control prices.

Whitacre's fraud made conviction difficult for the prosecutors. Without Whitacre's availability to testify, the government's case was hurt in two ways. First, the tapes he made, while graphic and convincing, would be regarded as potentially tainted. Whitacre had an opportunity to turn in tapes that would be damaging to the conspirators, but could have withheld tapes that might exonerate them (Daniel *et al*. 1997). Second, the government absolutely needed at least one credible participant who was prepared to testify that they knew that the purpose of their meetings and agreements was illegal market manipulation. Otherwise, defendants could claim that even the video tapes showed play-acting, management training, or some such innocent activity. For more than a year, no participant came forth to corroborate the intent of the meetings, phone calls, and documents. At ADM at most four or five men had detailed knowledge about the lysine conspiracy. Dozens of executives knew at the other four companies, but nearly all of them resided outside the United States, giving them personally a measure of immunity from U.S. prosecutors.

Plea bargaining between prosecutors and the lawyers representing the lysine makers began soon after the FBI raid. Negotiations were made difficult by the fact that the companies' counsel knew that the government's chief witness was a fallen star. Cooperation among the target companies' law firms during the first nine or ten months of this phase meant that they knew that none of their executives had agreed to cooperate with prosecutors. ADM hired one of the best known Washington law firms, Williams & Connelly, to defend itself in the lysine antitrust case and help coordinate a public relations lobbying effort that would restore some of ADM's former reputation. ADM spent lavishly on its legal defense; its filings with the Securities and Exchanges Commission (SEC) admit to legal costs of at least $40 million for the first year alone.

Negotiating a guilty plea agreement is a tricky business. The guilty party must admit to one or more specific acts that violated the antitrust laws and the dates of the violations. It must also promise to pay a fine and offer evidence against other guilty companies or individuals. Although the prosecution must follow the U.S. Sentencing Guidelines in arriving at the size of the fine, the DOJ has an important source of negotiating leverage: it may request a "downward departure" from the Guidelines fine range if the firm agrees to cooperate. It may also offer immunity from prosecution for cooperating witnesses, extend immunity to other indictable employees, reduce the number of counts in the indictment, or agree to phrase the dates of the conspiracy in a plea agreement in ways that are favorable to the guilty parties. The latter concession would reduce a company's exposure to what can be sought as settlements by civil plaintiffs. A time-honored practice of prosecutors is to try to identify and focus on the parties to a conspiracy that are most likely to cooperate and break ranks with the other conspirators. In

the lysine case, the company least able to withstand the financial consequences of a large fine was debt-burdened Sewon.

Behind the scenes, about three weeks after the FBI raid, the ADM board of directors formed a special committee to advise the management on the criminal and legal suits arising from the price fixing allegations. The board also hired a law firm to advise it, a firm different from the one advising ADM's management. M. Brian Mulroney, former prime minister of Canada, was chair of the antitrust committee and became chief negotiator of the ADM board with the prosecutors (Nicol and Ferguson 1999). ADM's special committee was permitted to hear some of the tape recordings made by Mark Whitacre that the DOJ considered to be incriminating. It is likely that some of its members became convinced that it was in ADM's interest to settle as early as possible with the government and private parties, but these directors faced one powerful obstacle. The chairman, Dwayne Andreas, took the position that the now undeniable meetings with lysine competitors were innocent affairs intended to collect information from their rivals about the lysine market. Moreover, Michael Andreas and Wilson were simply attempting to break the grip of a pre-existing Asian cartel in the global lysine industry.

It was in the Andreas family's interest that ADM delay settling and stonewall the government's investigation. No ADM employee was willing to cooperate with prosecutors until at least September 1996, some 14 months after the FBI raid. Perhaps in anxious to induce such cooperation, the DOJ made a very unusual move in March 1996. It announced that Dwayne Andreas was not the target of its price fixing investigations. If this was intended to shake loose an ADM employee, it did not work. However, the announcement may have emboldened the ADM board to press harder for a deal.

Meanwhile, prosecutors continued to apply pressure elsewhere in the wall of silence surrounding the lysine cartel. Cracks in its solidarity began to appear fairly early. In July 1995, an unidentified source inside Kyowa Hakko told a reporter at the *Wall Street Journal* that it viewed itself as a "minor player" in setting lysine prices; moreover, Kyowa blamed its bigger rival Ajinomoto for coercing it into colluding. Sewon too considered itself pressured into joining the cartel by its bigger Asian coconspirator. As the largest of the five companies, Ajinomoto knew that unless it confessed early, it potentially faced the largest criminal fines.

Ajinomoto, Kyowa, and Sewon caved in to prosecutors' demands for guilty pleas by July 1996. According to one source, the first manager to agree to cooperate with the government was Kyowa's long-time lysine sales director (Lieber 2000). Eichenwald (2000) gives a greater role to Sewon in cracking the case. As early as December 1995, Sewon began plea negotiations by offering the testimony of its chief conspirator as well as a

large number of documents about the 1986-1990 price fixing conspiracy as well as the 1992-1995 cartel. Ajinomoto offered its two lysine sales managers, but refused to compel its top official involved to testify.

The incentive offered by the DOJ for corporate cooperation was a generous offer to apply only the statutory maximum fine of $10 million for the two Japanese companies and only $1.25 million for Sewon. Moreover, except for two Ajinomoto officers, only one officer from each of the other two companies would be required to plead guilty and pay modest fines; all of the scores of other employees who assisted in the lysine conspiracy were to be immunized. Except for Kazutoshi Yamada, who may have left Ajinomoto by this time, no employees would face time in prison.

The reductions offered by the DOJ in monetary damages were indeed a bargain. Under U.S. Sentencing Guidelines, Ajinomoto, Kyowa Hakko, and Sewon could each have been required to pay up to $160 million in fines under the alternative sentencing statute. Instead, the DOJ offered Ajinomoto and Kyowa statutory fines of $10 million each or 6% of their maximum liabilities. Sewon got a 99% discount, which suggests that it was probably the first to offer cooperation in the case.

Although agreed upon in principle through proffer letters in early July, the DOJ held off making the guilty pleas public until August 1996. Before that happened, the good faith of the three companies was tested. On July 17, 1996 the recently retired general manager of Ajinomoto's Feed Division and his successor were interviewed in Hong Kong about their roles in the lysine conspiracy by the FBI (Tr. 1759-1765). Kyowa's chief cartel manager was interviewed at the same time. Sewon's representative was deposed in New York City in August. Their memories were sufficiently clear and consistent that the DOJ believed they would make good prosecution witnesses in any possible trial. With several potential witnesses now available to corroborate the intentions of the conspirators and interpret the taped evidence, prosecutors were able to pressure ADM itself. In August, they leaked the fact that the DOJ would seek a $400 million fine from ADM.

The guilty pleas of the three Asian firms were formally announced and presented in federal court in Chicago on August 27, 1996. Ajinomoto, Kyowa Hakko, and Sewon America and one officer from each company admitted their companies' guilt to one count of criminal price fixing in the U.S. market for lysine. The officers testified that their companies did not contest the facts mentioned in the plea agreements and they agreed to pay fines and cooperate with prosecutors in their investigation of the remaining cartel members, ADM and Cheil. Subject to court approval, the three voluntarily yielded their rights to jury trials.

The guilty pleas of the Asian firms must have been a shocking setback for ADM. It was now in a completely untenable legal position.

Should it refuse to plead guilty also, the government had overwhelming evidence of the conspiracy and a dozen participants in the cartel willing and able to testify as to intent. Worse, as the last holdout, ADM had no additional information about the lysine cartel to offer to the prosecutors.

Not surprisingly, ADM furiously negotiated a guilty plea agreement over the next couple of weeks with DOJ official Gary Spratling (Eichenwald 2000: 508-511). By September 10th, the government was demanding a $125-million fine and no immunity for four ADM officers: Dwayne Andreas, Michael Andreas, Terrance Wilson, and James Randall. A week later, ADM countered-offered a $35-million fine for ADM and indictments for only two officers. On September 17th the government traded indicting Dwayne Andreas and James Randall for an additional $65-million on the fine. The ADM board agreed to the $100-million fine as the price of avoiding a court trial for the company and its two most senior officers. While such prosecutorial horse-trading may not be pretty, it is probably necessary in order to conserve judicial resources.

By late September, all ADM employees except Michael Andreas and Terrance Wilson were presenting prosecutors with details of the lysine and citric acid conspiracies that satisfied prosecutors as to ADM's good faith. Prosecutors were especially pleased with Barrie Cox's deposition on October 12th, which was full of rich details about the citric acid cartel (Lieber 2000). Thus, on October 15, 1996, news of ADM's guilty plea covering lysine and citric acid were announced in three venues: Washington, D.C.; Chicago, IL; and Decatur, IL. In Washington, a press conference was held attended by Attorney General Janet Reno, her deputy Joel Klein, and a large number of DOJ officials involved in the case. These officials emphasized the precedent-shattering fine of $100 million placed on ADM. Reno said that the fine should "send a message worldwide" about the "tough, tough penalties" now likely for criminal price fixing. Klein called ADM's behavior "shameful" and motivated by "simple greed." Questions from the press that suggested the ADM had got off lightly were rejected.

ADM paid a fine of $70 million for its lysine infractions and $30 million for citric acid. The $70 million was only the second to exceed the statutory $10 million fine under the Sherman Act. The citric acid fine for ADM could have been $112 to $224 million had ADM not received a 73 to 86% discount for its cooperation on the case (Lieber 2000:37). For its cooperation in the citric acid investigation, ADM received a number of important concessions, not all of which were revealed in 1996. Both ADM's public-relations effort and the DOJ's press conference tended to gloss over these substantial concessions to ADM. First, the deal granted immunity from prosecution of all ADM employees for price fixing except Michael Andreas and Terrance Wilson. Although most ADM officers were required to be interviewed or to testify, an exception was made for the

company's top two officers. Second, the government agreed to drop a federal grand jury investigation in Springfield, Illinois that was charged with an investigation of allegations of theft of technology and trade secrets by ADM. Third, in a deal proposed by ADM's Washington law firm and worked out between the DOJ's Joel Klein and the Secretary of Agriculture but not revealed until years later, ADM would be allowed to continue signing sales contracts with USDA. Previously, companies guilty of felony violations had been disbarred for a number of years from government sales. Suspicions remain that the DOJ also agreed to quash the investigation by the fraud division into the many allegations made about ADM by Mark Whitacre (Lieber 2000). Finally, and potentially the most valuable concession, the government agreed to drop its investigation of price fixing in the corn sweeteners market. ADM was not granted immunity from prosecution because it was innocent of the charges, but because the DOJ judged that successful prosecution would be a challenging one with an uncertain outcome. The huge size of the market implied that even modest overcharge percentages would generate a huge liability for ADM.

Virtually simultaneously with the D.C. press conference, ADM's guilty plea agreement was being presented to Judge Ruben Castillo in U.S. District Court in Chicago. At that hearing prosecutors presented the terms of the agreement and outlined the evidence that supported the price fixing conspiracy. ADM's controller and a corporate officer, testified that the company accepted the terms of the agreement, waived its right to a jury trial, and did not dispute the facts about the conspiracy that were presented by the government. Mills pleaded guilty for the company, and Castillo accepted the plea. In his closing comments, Judge Castillo addressed the issue of deterrence of recidivism:

> "I'm hopeful that this black day will be overcome by the new behavior of the Archer Daniel Midland Co. . . Some will say that this fine is not high enough . . . [but] if a hundred million dollars doesn't send that message, I don't think there is a number on God's earth that I can set that would send that message."

At the hearing, a DOJ prosecutor had been interrogated by Castillo concerning the appropriateness of ADM's fines, $70 million for the lysine and $30 million for the citric acid conspiracies. Since they both exceeded the $10-million statutory cap, the prosecutor explained that ADM was one of the first price fixer that would be forced to pay a fine based on the "double the harm" sentencing rule. That is, the DOJ asserted that it was prepared to prove to the court that the cartels' U.S. overcharges exceeded $35 million in lysine and $15 million in citric acid. In fact, the

two overcharges were about $80 million and $200 million (Chapters 6 and 9). Thus, ADM's actual fine was less than 20% of the fine possible under the "two-times rule."

The corporate U.S. lysine fines totaled $83 million for a conspiracy that cost American customers $80 million. The three larger Asian companies received the largest discounts because they were the first to cooperate with the government. ADM's fine, while a record for the time, was also highly discounted even though ADM could not give the government with any information that the government did not already know. Instead, ADM was rewarded for offering valuable information about the citric acid cartel. Of the 40 *named* conspirators who worked at the five companies, three paid only modest fines, and after a lengthy criminal trial three were handed down prison sentences. The corporations and individuals paid less than 10% of the maximum fines that could have been requested from the courts.

The Citric Acid Prosecutions

The Investigation Phase

The FBI first learned about price fixing of citric acid on December 10, 1992 from ADM's Mark Whitacre. ADM's involvement was confirmed by a tape recording of a conversation with ADM manager Brasser made by Whitacre on December 21, 1992. On that tape Brasser said that Terrance Wilson told him not to worry about going to jail for price fixing in citric acid (Tr. 2868-2873). Soon afterwards, Brasser was fired because he refused to become involved in the conspiracy. Other sound recordings contained references about how well the citric acid cartel was organized. Wilson frequently extolled its ability to agree on volume allocations and monitor the agreement through the citric acid trade association ECAMA. While the June 1995 FBI raids turned up some incriminating evidence of monthly production targets and sales figures, without a witness to corroborate the purposes of the meetings and documents, such evidence remained circumstantial.

A grand jury was empanelled around June 1995 in San Francisco to investigate allegations of price fixing in the global market for citric acid. The grand jury worked with prosecutors from the local field office of the DOJ's Antitrust Division and the U.S. Attorney for the Northern District of California. Based on tape recordings of the lysine conspirators that contained fairly clear references to an ongoing conspiracy in citric acid, and

on the deposition of ADM's chief sales manager in citric acid, the grand jury issued subpoenas and obtained search warrants directed at five firms: ADM, Cargill, Haarmann & Reimer (a subsidiary of Bayer), the Austrian firm Jungbunzlauer, and the Swiss firm Hoffmann-La Roche.

The government's big break came on October 12-13, 1996. Behind the scenes, ADM and the DOJ had made a deal on a plea bargain that covered both lysine and citric acid. Solid evidence on the citric acid cartel was ADM's most valuable bargaining chip. ADM was the first member of the citric acid cartel to offer to cooperate with the DOJ. Within ADM the citric acid conspiracy had been managed by Terrance Wilson and his head of citric acid marketing, Barrie Cox. Wilson would not cooperate, but on October 12th Barrie Cox began to tell all to prosecutors in San Francisco.[8] Cox presumably had ADM's blessing at this point because without his full cooperation, ADM could be indicted for price fixing in corn sweeteners and Dwayne Andreas might be held accountable as well. As part of the ADM plea agreement, Cox would be immunized from prosecution for price fixing so long as he told the truth. Later, Cox would become in many ways the government's star witness in the criminal antitrust trial against Terrance Wilson.

Guilty Pleas

Cox divulged all the details of the conspiracy by the "G-4." The DOJ later said publicly that Cox "did cooperate and it is substantial." A couple of days later, ADM paid a $30 million fine for its role in price fixing in the market for citric acid, an amount that reflected a hefty discount for its cooperation with prosecutors. At the October 15, 1996 hearing in federal court in Chicago, prosecutors explained to Judge Castillo the amount of U.S. commerce in citric acid affected by the cartel from June 1992 to June 1995 was $350 million. The "base fine" under the U.S. Sentencing Guidelines was therefore $70 million. ADM's "culpability score" implied a fine range of $112 to $224 million. However, the government requested that the judge grant a downward departure because of "substantial cooperation." Thus, the $30 million fine represents a 73 to 87% discount from the

[8] Barrie Cox flew from England to be interviewed on April 5, 1996. Cox had been transferred to ADM's office in England by Michael Andreas. He was given a raise and told he would be given expanded duties, but these expanded responsibilities never materialized (Tr. 2652-2654). Some observers speculated that Cox's transfer might have been arranged to take him out of reach of U.S. subpoenas. Cox also told the FBI about some inexplicable payments he had seen concerning technology to produce monosodium gluconate (MSG), but the DOJ failed to prosecute (Lieber 2000: 316-317).

fine normally indicated by the Sentencing Guidelines.[9] No ADM officers were fined or imprisoned for their role in citric acid.

On January 29, 1997 the second and third conspirators entered a guilty plea in federal court in San Francisco. The defendants were Haarmann & Reimer Corp. and Hans Hartmann its president. The company paid a fine of $50 million, at the time the second largest in antitrust history. At its press conference, DOJ officials called the conspiracy "one of the largest, if not the largest, conspiracies ever prosecuted by the Department of Justice." They also asserted that Bayer's fine would have been larger had it not agreed to cooperate in prosecuting the remaining conspirators, but they declined to specify the actual overcharges. Private antitrust lawyers called the new higher fine structures "a staggering development for business." Haarmann & Reimer's fine, based on double the overcharge, represented an 87% discount. Hans Hartmann and Terrance Wilson were clearly regarded by prosecutors as the ringleaders of the cartel. Under the Sentencing Guidelines, Hartmann's offense implied a prison sentence of 24 to 30 months. Instead, because of his cooperation in providing information on the remaining members of the G-4, Hartmann received no prison sentence and a downward departure on his fine to $150,000.

Two months later, the remaining two members of the G-4 signed and submitted guilty pleas for price fixing. Hoffmann-La Roche and Jungbunzlauer agreed to pay $14 and $11 million respectively. Udo Haas, former managing director of the Belgian subsidiary of Roche that manufactured citric acid, agreed to pay a $150,000 fine, as did Rainer Bilchbauer, Chairman and President of Jungbunzlauer. Neither served time in prison.

One of the more curious aspects of the pleas was the time period in the agreements. The conspiracy was stated to have begun "as early as January 1993." Why the DOJ chose such a patently late date is unknown. As mentioned above in Chapter 4, the conspirators met and agreed to set prices in March 1991. Moreover, the Statement of Facts given to Canada's Court by the Attorney General (and co-signed by the defendants) gives July 1991 as the beginning date for the citric acid conspiracy. By suggesting that ADM's illegal activity might have begun almost two years later, prosecutors severely disadvantaged private plaintiffs who were in the midst of negotiations with the citric acid defendants in October 1996. A longer conspiracy period would have served deterrence by significantly increasing the damages claimed by plaintiffs.

---

9 However, if the DOJ had based it fine on the cartel's overcharge on U.S. buyers of citric acid, then prosecutors could have requested even a larger fine based on double the over charge, which topped $400 million. Thus, this method implies that ADM's actual fine was 92% of its maximum liability.

Prosecution of the Vitamins Cartels

For government trust-busters, the vitamins conspiracies of the 1990s were the greatest catch in antitrust history. All previous international cartels pale in comparison to the vitamins case in scope, size, complexity, longevity, or nearly any other conceivable measuring stick. Twenty-one chemical manufacturers fixed the prices of 16 vitamin products in nearly every country of the world for up to 16 years. The cartels' global sales during the conspiracies amounted to grand total of $34 billion. Illicit profits made by the cartels totaled $10 billion. Fifteen corporations and 15 individuals would be judged guilty of price-fixing felonies in U.S. courts.

U.S. prosecutors did not punish the defendants for up to 14 cartelized vitamins in the late 1980s. No mention is made in U.S., Canadian, or EU documents that the earlier conspiracies may have existed. The case for price fixing rests with allegations made by plaintiffs in the U.S. treble-damages suits and some fairly compelling, if circumstantial price data (Bernheim 2002a, Kovacic *et al*. 2006). The absence of indictments for conspiracies in the late 1980s is not proof of innocence because it may simply be explained by the inherent difficulties of obtaining old business records, the unreliability of the memories of witnesses, or the absence of other evidence that can withstand the rigors of a judicial review.

Worldwide prosecutions of the cartels of the 1990s began in the United States in 1997. It was a nine-year odyssey.

In broad outline, an FBI investigation in 1997 that failed to turn up sufficient evidence of cartel activity was suspended. However, evidence provided by buyers of suspicious parallel behavior caused a private damages suit to be filed a year later, and the DOJ's interest was piqued once again. A formal grand jury investigation began in early 1998. In mid 1998, a U.S.-based member of the vitamin B4 cartel was granted U.S. amnesty; at the same time the European leader of the vitamin B3 cartel offered to plead guilty and cooperate with DOJ investigators. The *coup de grace* for the vitamins cartels came in early 1999 when a second European company was awarded amnesty. Canadian prosecutions soon followed, with the Canadian Competition Bureau (CCB) expanding the charges into new vitamin markets. In late 2001, the European Commission issued the first and most sweeping of three vitamins decisions that imposed record fines on ten manufacturers. Meanwhile, in the United States and Canada, private damages suits came to an end around 2004 mainly through negotiated settlements. Appeals Courts issued decisions on vitamin-cartel matters as late as March 2006.

The Investigation Phase

The U.S. DOJ had been busy prosecuting the lysine and citric acid cases throughout 1996 and early 1997. These investigations were centered in the DOJ's Chicago and San Francisco offices, respectively. In late 1996 the FBI had received information about a possible price fixing conspiracy in the vitamins industry (Hammond 2001). Initial suspicions focused on the vitamins B3 and B4 markets. In March of 1997, FBI agents working with the DOJ's branch office in Dallas, Texas interviewed Dr. Kuno Sommer in the United States about the matter Barboza (1999). Sommer was the global head of vitamins marketing for Hoffmann-La Roche, the world's leading manufacturer of vitamins. Sommer also served on Roche's small management committee that formed the pinnacle of the company's management structure. If anyone should have known about vitamins price fixing within Roche, it was Sommer.

Sommer denied that Roche was involved in any such illegal activity. He was interviewed under the March 1997 citric acid guilty-plea agreement in which Roche had promised full cooperation from its employees in any antitrust investigation, so Sommer's denial would have serious legal consequences if he did not answer truthfully. Not only is it a federal felony for the person being interviewed, but also misleading the FBI could cause the Department of Justice to revoke concessions given to Roche itself in the citric acid case. In particular, the DOJ had given Roche a large reduction in its fine, and it had immunized Roche officers from being personally indicted for their roles in the conspiracy. Later it came to light that Sommer had prearranged with others at Roche to lie about the cartel's existence. However, because Roche was the only vitamin co-conspirator with a cooperation pledge in 1997, Sommer's denials must have slowed the FBI's investigation considerably.

In November 1997, the DOJ investigation picked up speed again. Press reports revealed that numerous executives responsible for procuring vitamins for animal-feeds manufacturers were being interviewed about possible price fixing activities in the industry. Moreover, word leaked out that a grand jury had been opened in Dallas, Texas to assist the DOJ in its vitamins investigation. This grand jury would toil away in secret for another 14 months before the first fruits of the investigation would become public. Initial suspicions were focused on the vitamins B3 and B4 industries, but leads began to develop about the larger vitamins A, E, and C markets (Hammond 2001:6-7).

In December 1997, a civil antitrust suit was filed against a large number of vitamins manufacturers alleging a vast price-fixing conspiracy against U.S. buyers of bulk vitamins (Donovan 2005:188-194). The suit was filed by the class-action Birmingham, Alabama law firm of Bainbridge & Strauss following publication in November of an article in *The Wall Street Journal* about a grand-jury investigation of vitamins price fixing. In statements to the press couple of years later, the firm would take a great deal of credit for initiating the convictions of the mighty vitamins defendants. While the firm probably shared what information it had about the vitamins cartels, the Dallas DOJ office seems to deserve most of the credit.

By mid-summer 1998, strong and persistent rumors had begun circulating among Washington antitrust lawyers that indictments were likely for price fixing in a broad array of vitamins; Roche and BASF were mentioned as targets of the vitamin probe. In March 1998, it would become known that the Dallas grand jury had made considerable progress in two product markets, vitamins B3 (niacin) and B4 (choline chloride), both of which have their main applications in animal nutrition.

Two major developments took place behind the scenes. First, in June 1998 or soon thereafter the Ohio firm Bio-Products entered into the DOJ's amnesty program and began to turn over all that its employees knew about the choline chloride cartel. Second, in September 1998, the dominant manufacturer of vitamin B3 (and minor producer of biotin), the Swiss firm Lonza, agreed to plead guilty for criminal price fixing. Lonza's cooperation was secured by a fairly small fine (only $10.5 million) and by the DOJ's agreement not to seek criminal charges against any of Lonza's executives. The fact that Lonza did not receive amnesty from the DOJ probably reflects the fact that it initiated the conspiracy; ringleaders do not qualify for amnesty. However, in an unusual move for the DOJ, Lonza's indictment and guilty plea were kept secret under a court seal for six months. The most likely explanation for the secrecy is that knowledge about Lonza's cooperation would have alerted other, bigger targets in the vitamin industry and thereby imperiled the DOJ's investigation. Lonza's cooperation was a break for the DOJ's investigation, but it was only a small break.

Lonza's information on the vitamin B3 cartel did not lead the U.S. investigation directly to the main Roche cartels. None of the leading manufacturers in the world's vitamins industry make vitamin B3. However, Lonza does manufacture one other vitamin, biotin (vitamin H). Lonza, together with two German and two Japanese manufacturers, controlled about half of the world biotin market. The dominant world producer of biotin with about 45% of the market is none other than Hoffmann-La Roche. Biotin should have been the bridge for U.S. investigators to learn about the larger web of Roche cartels. Yet, oddly the United States, unlike

Canada and the EU, never prosecuted any of the five members of the biotin cartel.[10]

Convictions in Vitamin B3

In a very unusual delay, 21 months after Lonza pleaded guilty, in May 2000 three companies and two individuals pleaded guilty to criminal price fixing in the market for vitamin B3. The three manufacturers convicted were Degussa-Hüls of Frankfurt am Main, Germany; Reilly Chemicals, Inc. of Indianapolis, Indiana; and Nepera, Inc. of Harriman, New York. Degussa and Reilly owned a joint venture that made B3 in the United States and a small plant in Belgium. Nepera was a relatively small U.S. manufacturer of B3, but the fact that Nepera's President and Vice President for sales were the only two persons convicted in this cartel suggests that Nepera was one of the companies resisting a plea bargain.

The plea agreements for Lonza, Degussa, and Nepera admit that each of the companies began conspiring "as early as January 1992." U.S. transaction prices show a suspicious jump in 1991. Nepera and possibly Degussa seem to have resigned from the cartel in July 1995, but in Degussa's case it handed on its conspiratorial role to its joint-venture partner, Reilly Industries.[11] Prices declined for five years thereafter. When the conspiracy ended in March 1998, the two largest U.S. sellers of B3, Lonza and Reilly, were still conspiring. By May 2000, four companies had paid $33.5 billion in criminal fines, and two Nepera executives were to be sentenced to a total of 20 months in prison. No Degussa or Reilly managers were sanctioned.

The Big Three Plead Guilty

With fairly solid evidence of a broad conspiracy in several vitamins markets in the hands of government investigators by late 1998, in the time-honored fashion of prosecutors throughout history, they turned the screws tighter on the smaller vitamins manufacturers. Rhône-Poulenc was a vulnerable target. It was the smallest of the Big Three vitamin manufacturers,

---

10 The biotin cartel ended in late 1995, so the statute of limitations does not seem responsible for the decision not to indict. Shortly after the biotin cartel ended, Lonza ceased production. Lonza might have qualified for "amnesty plus" in the B3 case by informing the DOJ about the biotin cartel.

11 There may have been a change in ownership or management of the joint venture, Vitachem, Inc. Reilly's participation began in September 1994. It paid the lowest fine of the four conspirators ($2 million). Nepera's exit may also be explained by its takeover in 1995 by Cambrex Corp., which was not charged by the DOJ.

holding about 9% of the global market. Rhône-Poulenc was amenable to a deal because it had previously announced its intention to merge with Hoechst, and such a merger could not be consummated if uncertainties about severe price fixing sanctions were not resolved. Whatever Rhône-Poulenc's motives, it agreed in late 1998 to cooperate with the DOJ's broader vitamins investigation. In fact, Rhône-Poulenc was formally admitted into the DOJ's amnesty program after it provided crucial evidence for prosecutors. Not only did its executives, who were deeply involved in colluding on vitamins A, E, B2, and B12, begin to provide incriminating details, but also its vitamins managers gave the DOJ the kind of evidence that is most persuasive with juries – tape recordings of an actual cartel meeting.[12] The meeting in February 1999 was one of "Vitamins Inc.'s" top-flight occasions, with all of the companies' top officers present. The cartel had at that time gone into deep cover, so this last meeting was probably held in one of the participant's private homes in Switzerland or Germany. When the DOJ approached the lawyers representing Roche and BASF with the overwhelming evidence provided by their former co-conspirator Rhône-Poulenc, the two cartel ringleaders quickly agreed to plead guilty.

DOJ negotiations in March to May of 1999 mainly involved the size of the corporate fines to be paid by Roche and BASF and the number of executives to be indicted. The DOJ was in a strong bargaining position because of its trial victory in late 1998 over three ADM executives in the lysine case. Under the twice-the-harm rule for sentencing of corporate felons, Roche was presented with the doubtless astounding news that their company was facing U.S. fines of up to $1.9 billion (plus even higher civil penalties).[13] BASF was liable for up to $640 million in U.S. fines. Although the third and fourth to agree to plead guilty, a major concession offered to Roche and BASF by the DOJ was the right for both companies to be designated in second place when applying for leniency.[14] A second place position confers the expectation that the applicants will receive the second largest discounts on their fines. The DOJ would later praise Roche and BASF for their exemplary cooperation.

---

12 The existence of such tapes has not been formally acknowledged by the DOJ, but when asked about it at a press conference, the DOJ's Gary Spratling artfully avoided denying it. Barboza (1999) accepts the story.

13 Roche imposed an estimated $942 million in overcharges on U.S. direct buyers of vitamins in 1990-1999, an amount that can be doubled to calculate the government fine and tripled as an award to direct buyers (Connor 2006b: Appendix Table 13). Similarly, BASF generated $320 million in U.S. overcharges.

14 Spratling (2000) would later assert that Roche and BASF were "tied for second place" after Rhône-Poulenc, but he is not counting Bio-Products or Lonza for some reason.

The DOJ prosecutors likely pointed out the material benefits of a downward departure in their ultimate fines if only they too would cooperate. The decision to pay even the greatly reduced fines offered by the DOJ was obviously not an easy one to make for Roche and BASF. There is a revealing detail in the plea agreement signed by BASF, an appended letter from its general counsel to the DOJ dated May 18, 1999 committing BASF to plead guilty under the DOJ's terms: the meeting of BASF's Executive Committee at its Ludwigshafen headquarters to approve the deal must have been rancorous, because it lasted seven and one-half hours.

On May 19, 1999 the *Wall Street Journal* announced to the world that momentous guilty pleas of price fixing in the vitamins industry would be made public the next day. The announcement day was full of dozens of coordinated events. On the morning of May 20th, a press conference was held at the headquarters of the Department of Justice in Washington, attended by the Attorney General Janet Reno, the Assistant Attorney General for Antitrust Joel Klein, and many other top officials of the DOJ and FBI. At about the same time, officers of Roche and BASF appeared with DOJ prosecutors in U.S. District Court in Dallas, Texas to file their guilty pleas and explain to the Court how the fines and jail sentences were arrived at. The DOJ and the Big Three vitamins makers also released statements to the press. Rhône-Poulenc's statement admitted that it had engaged in criminal price fixing and would face harsh civil penalties in the future for its crimes; it also pointed out that it had been admitted to the DOJ's amnesty program and thereby would save tens of millions of dollars in potential U.S. penalties. Joel Klein spent much of the day being interviewed about the plea agreements. All major newspapers and the world's business press would be filled with news of the deal the next day.

The deals involved an almost unimaginable stepping up of price fixing sanctions. Hoffmann-La Roche agreed to pay $500 million in fines, almost five times the previous record antitrust fine. BASF paid $225 million. These fines were roughly proportional to each company's U.S. and global market shares. (Had Rhône-Poulenc been fined, it could have paid as much as $450 million). As the "second firms" to confess and with promises to cooperate, Roche and BASF were entitled to great leniency (Spratling 2000). Although a huge public relations coup for the DOJ, the fines reflected discounts of 74 and 65%, respectively, from the maximum possible fines. As odd as it may sound, settling for $725 million in fines was a good deal for the defendants.

Besides the corporate fines eight senior executives of Roche and BASF were indicted for criminal price fixing. The four Roche officials were Dr. Kuno Sommer (President of Roche's specialty chemicals division), Dr. Hugo Brönnimann (President of the vitamins division), Andreas Hauri (head of global vitamin marketing), and a former Roche executive

whose name is secret. At BASF, four officers with similar positions were indicted. In addition to these eight, ten more managers were listed by name as unindicted co-conspirators. While all eight top executives were fined, the DOJ saved its harshest treatment for Kuno Sommer. He had not only fixed prices but also made false statements to DOJ investigators in March 1997. In addition to a $100,000 personal fine, Sommer had to agree to a four-month prison sentence. This was the first time in U.S. antitrust history that Europeans had agreed to serve prison time for price fixing.

At its press conference, DOJ officials were grave and scolding. Janet Reno began by saying that the $500 million fine was ". . . the highest fine the Justice Department has ever obtained in any criminal case. We mean business." Joel Klein elaborated:

> "The vitamin cartel is the most pervasive and harmful criminal antitrust conspiracy ever uncovered . . . The enormous effort that went into maintaining the conspiracy reflects the magnitude of the illegal revenues it generated . . . These cartels . . . are powerful and sophisticated and, without intervention by antitrust authorities, will often go on indefinitely."

When asked by a reporter why he thought the vitamin cartel lasted so long, a DOJ official gave three reasons. First, the Antitrust Division had only stepped up its efforts directed at global price fixing since the 1995-1996 lysine cartel case. Second, the conspirators had gone to great lengths to cover up their conspiracy. Third, the DOJ's leniency program had been very useful in attracting Rhône-Poulenc's cooperation, but the 1993 revision needed years to become well known.

A day after the DOJ press conference, the Chairman of Roche, Franz Humer, and the company's CEO met with the press. Humer said:

> "I am personally absolutely shocked at what has happened. You will understand that this was not part of our responsibility. We really don't know what [the Roche price fixers] did."

He claimed to have learned of the conspiracy only in February 1999; two previous internal investigations by the company in 1997 and 1998 (in response to civil suits brought against Roche by vitamin buyers in the United States) had failed to uncover any skullduggery. Huber said that he would take steps to avoid a repetition of antitrust offenses, but his plan was rather vague. The only concrete step taken was firing Kuno Sommer

and Hugo Brönnimann; the six other managers mentioned in Roche's guilty plea agreement were left in their jobs.

Humer's performance at this press conference raised a chorus of critical comments. In an article laced with acid language, *New York Times* writer Edmund Andrews derided Humer's statements:

> ". . . the chairman and chief executive of Roche Holdings AG pronounced themselves blameless and clueless . . . "

An article appearing in the *Financial Times* of London commented that:

> "The fine is a severe blow to the reputation of Roche, one of the world's oldest and most conservative pharmaceutical companies."

Industry analysts were not long in issuing glum predictions about the financial implications for Roche *et al*. By June 1999, they were speculating that the total antitrust costs for the defendants would be at least $2 billion. Although promptly denied by Roche, one chemical-industry analyst estimated that Roche alone would face antitrust liabilities of $1 billion or more and might want to sell its vitamins/fine chemicals division. The analyst's statement would turn out to be prescient but short of the mark. Five years later Roche did sell its vitamins division, but its antitrust bill would amount to at least $2.5 billion. And Roche did dispose of its vitamins assets.

Smaller Firms Plead Guilty

The press releases of the U.S. Department of Justice make it clear that it regarded each of the punished nine vitamins cartels it fined as cogs in one vast machine of collusion. Although the fines meted out on the first three companies would account for 80% of the total, ten more corporate guilty plea agreements followed those of Lonza, Roche, and BASF. The fines came in three waves of public announcements.

The first wave of post-Roche guilty pleas came on September 9, 1999. Takeda Chemical Industries, Eisai Co., and Daiichi Pharmaceutical paid fines of $72, $40, and $25 million, respectively, for price fixing in the markets for vitamins E, C, B2, and B5. It is typical for conspirators that take longer to admit their guilt to be fined at a higher rate than companies that settle early and cooperate. Negotiations with these three companies had dragged on for about seven months. However, the fine paid by Eisai

was discounted by 75% -- the same rate as had been accorded Roche and BASF. That is, Eisai was treated as though it too was "second in line" for leniency. The other Japanese firms, Takeda and Daiichi, received generous discounts of 59% and 40%, respectively. Given that Takeda was the ringleader of at least six Japanese cartelists, the reason for its large discount is particularly difficult to square with DOJ fining policy. No officers of the three companies were individually sanctioned.

The large U.S. fines paid by the three Japanese chemical companies were widely reported in the companies' home country. Perhaps to counter the adverse publicity, the companies imposed on themselves additional sanctions. At Takeda Chemical Industries all employees were to be required to take new training in antitrust principles. The company's president took a 15% pay cut for three months, and members of the board of directors ordered a 5%, three-month pay cut for themselves. Daiichi and Eisai announced very similar sanctions for their boards, presidents, and employees on the same day. Although there is a certain ritualistic flavor to their public self-flagellation, at least it makes the point that the companies' entire governance structures accept some of the burden of responsibility for the companies' criminal behavior. In any case, the Japanese companies' responses stand in stark contrast to the "clueless and blameless" stance of Roche's top officials.

In September 1999, the second, much delayed corporate conviction for choline chloride was announced. Chinook Group Ltd. of Canada became the 8th firm prosecuted in the vitamins scandal. Recall that Chinook's co-conspirator had confessed to price fixing 15 months earlier and that the FBI had raided Chinook's offices one year earlier. These actions should have yielded considerable evidence against Chinook. On the other hand, previously two of its officers had been indicted for the same crime but had refused to plead guilty or otherwise cooperate. Moreover, it is also apparent that the third participant in the cartel, DuCoa, and its managers were also refusing to cooperate with prosecutors. DuCoa's owners did not agree to plead guilty until September 2000. These developments indicate that because of resistance by the company's owners and management the DOJ had considerable trouble obtaining corporate guilty pleas from both Chinook and DuCoa. At Chinook, two U.S. employees and one Canadian employee were found guilty of felonious conspiracies. Considerable evidence led a U.S. court to conclude that the two controlling owners of Chinook were also aware of and encouraged the price fixing, yet neither were indicted by U.S. or Canadian authorities.

Chinook agreed to pay a $5 million criminal fine for its role in the price fixing vitamin B4. Chinook was the largest member of and instigator of the North American branch of the choline chloride cartel. Under the double-the-harm standard, Chinook was liable for a U.S. fine of up to $145

million. Instead, its 97% discount suggests that the collapse of prices in the choline chloride market had driven Chinook into poor financial shape and it was unable to pay a large fine.

The DOJ winded down its investigation in 2000. The second wave came in May 2000. Four corporate and two personal price fixing convictions were announced that came close to tidying up the slate. The Darmstadt, Germany-based pharmaceutical firm E. Merck pleaded guilty to fixing the price of vitamin C and agreed to pay a $14 million fine. Roche, BASF, and Takeda had previously admitted their guilt in the vitamin C case, and E. Merck was the last member of this cartel to be punished. In addition, three companies were convicted in the vitamin B3 cartel: Degussa-Hüls (Germany), Nepera (a subsidiary of the U.S. firm Cambrex Corp.), and Reilly Industries (a privately owned Indiana firm). Degussa was awarded the smallest antitrust-fine discount of any of the 13 vitamin cartelists, a paltry 29%. The distribution of the $19 million in fines suggests that Degussa was a co-leader of the cartel, but its high fine may also have been a consequence of recalcitrance in settling with the government. Degussa's guilty plea came 18 months after the largest member of the B3 cartel (Lonza) had capitulated and agreed to supply the DOJ with information. Degussa's small discount is also surprising because its partner in crime, Reilly Industries, was granted a 78% downward departure from the maximum.

The fourth member of the vitamin B3 cartel was Nepera, which was the smallest company in the vitamin B3 cartel. Its $4 million fine was one of the most heavily discounted (83%). Its large discount probably reflects a low ability to pay the fine. Both of the men convicted and given prison sentences were Nepera executives. As the DOJ usually reserves the right to insist on prison sentences only for ringleaders of cartels, their imprisonment probably signals an initial refusal to accept responsibility for their actions.

Much later, in September 2002, the second member of the choline chloride conspiracy, DuCoa, pleaded guilty and paid $500,000, by far the smallest fine of the 13 convicted firms in the United States. Three of DuCoa's officers pleaded guilty, and its last president was convicted at trial in Texas in December 2004 (DOJ 2005). He received the longest prison sentence (30 months) of any of the convicted vitamins defendants. It appears from this turn of events that the new owners of DuCoa might not have been aware of the price fixing going on in the company's vitamin sales department. From 1988 to 1997, DuCoa was a 50-50 joint venture of the giant chemical company DuPont and the equally huge food manufacturer ConAgra. DuCoa was sold to a new owner, DCV Corp., during the middle of the vitamin B4 conspiracy. DCV maintains that it knew nothing of the price fixing. Indeed, DCV sued DuCoa's former owners, DuPont and

ConAgra, for failing to reveal a material fact prior to the acquisition of DuCoa. The imposition of a nominal fine on DuCoa lends credence to the notion that the company's new owners had no knowledge of the conspiracy.

To sum up, thirteen chemical companies were convicted by the United States for price fixing in markets for bulk vitamins. U.S. fines on the unlucky 13 accumulated to $915 million in nominal dollars or $677 million in 2005 dollars (Tables 13.1 to 13.3). In addition, 16 senior executives of the vitamins manufacturers were criminally indicted and received 16 personal sentences that averaged $110,000 in fines and 8 months in prison.

Ten That Got Away

Eleven of the 21 corporate participants were indicted by the U.S. DOJ. Two of the 11 pleaded guilty but were given amnesty for being the first to come forward with information to prosecute the remaining cartelists and their managers.

How can two firms be first? As related above, Rhone-Poulenc offered to cooperate in the DOJ's on-going vitamins investigation sometime around December 1998. Rhone-Poulenc had become an early participant in two of the largest Roche-organized cartels – vitamins A and E. The second firm to be designated first in line for amnesty was Bio-Products, an Ohio manufacturer of choline chloride controlled by the enormous Japanese trading company Mitsui & Co. (Barnett et al. 2005: 29). It appears that as a legal matter the DOJ, despite pronouncements to the contrary, viewed the chlorine chloride cartels as almost entirely separate from the other 15 vitamins cartels.

Bio-Products gave sufficient information to the DOJ to convict two North American manufactures, Chinook and DuCoa, for criminal price fixing. However, Akzo Nobel, BASF, and UCB, the three members of the European branch of the choline chloride cartel, were not indicted by the DOJ. By agreeing to stop exporting to the North American market from 1992 to 1998, these firms were directly responsible economically and legally for the price increases in the United States. Both Canada and the European Commission were well informed about the European branch, and the three European manufacturers paid substantial settlements to U.S. buyers to settle a class action. The DOJ's inaction is puzzling.

Table 13.1 Global Monetary Antitrust Sanctions, by Company 1999-2005

Companies	Fines [a]				Private Suits [d]	Total
	U.S.	Canada	EU	Other		
	Million nominal U.S. dollars					
Roche	500.0	42.0	410.0	9.3	1468-1736	2492-2697
BASF	225.0	16.2	308.4	4.3	441-521	994-1074
Takeda	72.0	2.8	32.9	0.0	383-454	491-562
Rhone-Poulenc	0 [b]	11.6	4.5 [b]	2.8	274-324	292-342
Eisai	40.0	1.7	11.7	0.2	93-110	147-164 [e]
Daiichi	25.0	2.1	20.8	0.1	64-74	112-124
E. Merck	14.0	0.55	8.2	--	50.7	73.5
Lonza	10.5	0.6	29.2	0	28.5	68.8
Mitsui/Bioproducts	0 [f]	0.4	--	0	53.4	53.8
Tanabe	0	0	0[c]	0	45	45.0
Akzo Nobel	0	0.55	28.0	0	7.5	36.1
UCB	0	0.0	13.8	0	9.0	22.8
Degussa	13.0	1.3	--	0	8.7	23.0
Sumitomo	0	0	0[c]	0	17.5	17.5
Chinook	5.0	1.2	0[c]	0	6.9	13.1
Solvay	0	0	8.1	0.01	--	8.1
Nepera	4.0	0.12	0[c]	0	3.5	7.6
Reilly	2.0	0.02	--	0	4.2	6.2
Hoechst	0	1.2	--	0	0	1.2
DuCoa	0.5	0	0[c]	0	0.4	0.9
Kongo	0	0	0[c]	0	0	0
Total	915 [g]	83.1	847.6	16.4	2966-3466	4821-5320

Source: Connor (2006c: Appendix Table 2).

-- No information, no sales in the jurisdiction, or pending

[a] Fines announced as of early 2005 by U.S., Canada, EU, Australia, and Korea. EU investigations of vitamins B3 and B12 may be pending.

[b] Amnesty for vitamins A&E.

[c] Guilty but saved by the statute of limitations.

[d] U.S. settlements widely reported to be more than $2 billion, possibly as high as $5.5 billion. Includes settlement by National Association of Attorneys General for $335 million for indirect buyers in 23 states ($305 mil.) and 43 states as direct buyers ($30 mil.). Legal defense fees are probably 5-10% more than settlements payouts. Also includes Canadian private suits totaling $105 million.

[e] Annual report 2000 said "total losses" were 5.7 billion yen (about $188 mil.).

f) Amnesty for vitamin B3.

g) Includes fines on 16 individuals.

Table 13.2 Real Monetary Sanctions by Vitamin Product, 1999-2005

Product Market	U. S. Govt.	U.S. Private	Canada [b]	Europe	Rest of the World	World
			2005 U.S. dollars [a]			
Beta carotene	52.4	118.9	8.2	52.7	0	232.2
Canthaxanthin	1.1	2.6	0.17	51.1	0	55.0
Biotin (H)	0	42.1	0	0	0	42.1
Choline chloride (B4)	2.4	43.0	4.58	35.4	0	85.5
Folic acid (B9)	0	6.6	0	0	0	6.6
Vitamin A	74.8	232.9	16.7	69.1	4.68	400.6
Vitamin B1	0	14.5	0	0	0	14.5
Vitamin B2	19.5	38.0	2.7	32.9	0	93.1
Vitamin B3	22.9	30.7	2.36	0	0	56.0
Vitamin B5	20.9	50.9	4.55	58.4	0.08	134.9
Vitamin B6	0	13.4	0	0	0	13.4
Vitamin B12	0	3.1	3.12	0	0	6.27
Vitamin C	111.9	218.6	18.1	51.0	3.74	405.3
Vitamin D3	0	0	0	24.7	0	24.7
Vitamin E	202.2	509.7	32.4	106.3	4.85	857.9
Premixes	168.5	348.5	52.5	0	0	569.6
Total	676.6	1673.8	145.6	481.7	13.36	2991.1

Source: Connor (2006c: Table 17A. To allow for the opportunity cost of capital (i.e., the absence of prejudgment interest), fines and settlements are adjusted downward by the U.S. prime rate of interest plus 1% from the midpoint of the conspiracy to the year the cartel was fined; then from the latter year, the figure is raised to $2005 using the producer price index of the appropriate region.
a) The EU assigns fines by product, but most other fines and settlements are allocated by the affected sales of the product and then within the product by company market share. U.S. Private is conservative. Converted C$1 to US$ 0.826.
b) Includes private settlements for single damages to direct and indirect purchasers that account for 51% of the total.

Table 13.3 Monetary Sanctions by Vitamin Product, 1999-2005

Product Market	U. S. Govt.	U.S. Private	Canada [b]	Europe	Rest Of the World	World
			Million nominal U.S. dollars [a]			
Beta carotene	62	187-220	9.9	81	0	339-372
Canthaxanthin	0	4-5	0.2	78	0	84-85
Biotin (H)	0	94-98	0	0	0	94-98
Choline chloride (B4)	5.5	98	9.9	88	0	202
Folic acid (B9)	0	14-16	0	0	0	14-16
Vitamin A	97	404-475	22.4	117	5.6	645-716
Vitamin B1	0	31-35	0	0	0	31-36
Vitamin B2	28	73-86	4.0	62	0	167-179
Vitamin B3	30	58	4.2	0	0	91
Vitamin B5	39	88-104	6.1	99	0.1	233-248
Vitamin B6	0	28-33	0	0	0	28-33
Vitamin B12	0	6.5-7.5	5.2	0	0	11.5-12.5
Vitamin C	175	463-533	29.2	104	5.4	776-846
Vitamin D3	0	0	0	38	0	38
Vitamin E	262	884-1039	43.4	180	5.8	1374-1529
Premixes	218	605-710	70.4	0	0	891-1056
Total	915	2860-3360	205	847	16.9	4845-5345

Source: Connor (2006c: Appendix Table 2).
a) The EU assigns fines by product, but most other fines and settlements are allocated by the affected sales of the product and then within the product by company market share. Converted C$1 to US$ 0.826. U.S. settlements may be as high as $5.5 billion.
b) Includes private settlements for single damages to direct and indirect purchasers that account for 51% of the total.

The DOJ declined to indict companies that arranged cartels in seven markets: vitamins B1, B6, B12, D3, folic acid, biotin, and canthaxanthin. This decision affected three Japanese manufactures of biotin and folic acid. Sumitomo, Tanabe, and Kongo Chemicals each held 15 to 20% global market shares in the two markets and caused an estimated $20 million in overcharges in the U.S. market. Neither the inability to pay nor the statute of limitations was a factor inhibiting prosecution of the sellers in these two cartels. Folic acid was an exceptionally small market (less than

$12 million in affected sales), but the biotin market was substantial ($144 million).

In the case of vitamins B1 and B6, the participants were companies fined for their participation in other cartels. Neither lack of information nor the statute of limitations explains the DOJ's inaction. Both cartels generated modest U.S. sales ($104 million) and equally modest overcharges (about $14 million). The vitamin D3 cartel had $72 million in affected commerce and $10 million in U.S. overcharges. By failing to prosecute vitamin D3 Solvay got a pass on U.S. fines.

Hoechst was the junior member of the global vitamin B12 cartel, which it dominated along with Rhone-Poulenc. Neither manufacturer was indicted for fixing prices in this medium-size market ($112 million in affected U.S. sales). As mentioned previously, the fact that Rhone and Hoechst were planning to merge was a likely factor in Rhone's decision to seek amnesty. It is likely that the DOJ's failure to press ahead with legal action in vitamin B12 was a concession to Rhone when it agreed to confess. Without such a deal, the two firms faced fines of up to $82 million.

Finally, the DOJ did not prosecute the cartel that fixed the prices of canthaxanthin and other carotenoids. The industry is a duopoly of Roche and BASF; their conspiracy generated $116 million in U.S. sales and $24 million in overcharges. Its omission is a mystery.

To summarize, ten out of 21 corporations that engaged in vitamins collusion in the 1990s received no fines in the United States. Two of them were large companies that sought and received full amnesty, while the remaining eight firms were generally small ones. Two of the three large European manufacturers that had by agreement withheld exports of vitamin B4 to the United States were unsanctioned by the DOJ. Moreover, no fines were imposed for price fixing in any markets with less than $150 million in affected commerce, namely, vitamins B1, B6, B12, D3, folic acid, biotin, and canthaxanthin. While each of these cartels was relatively small, the aggregate amount of affected U.S. commerce was significant -- $560 million or 7.4% of the total. As a result, eight cartelists escaped criminal prosecution. No impediments to prosecution were noted, so the reluctance to indict seems to rest upon in a decision to conserve prosecutorial resources.

Impact on Civil Cases

Guilty pleas in criminal antitrust proceedings can have a substantial impact on formally distinct civil antitrust cases. Historically, civil damages were filed after it became known that the government intended to indict violators and were concluded after guilty pleas or guilty verdicts were obtained.

Indeed, this expectation on timing was enshrined by Congress in Section 4 of the Clayton Act, which specifies that guilt determined in a criminal proceeding provides *prima facie* evidence for civil trials. Therefore, the scope and wording of the guilty plea agreement is crucial to the outcome of follow-on civil cases (see Chapter 15). The shape and content of these agreements are the result of careful negotiations between DOJ prosecutors, and counsel for the defendants will press for wording that will be favorable to their clients in any anticipated civil damages actions (Victor 1998).

Antitrust plea agreements negotiated by the DOJ tend to be terse and formulaic. They usually outline the nature of the product, legal name and abode of the defendant, the nature of the conspiracy in restraint of trade, conspiracy dates, and sometimes the size of the market's sales during the conspiracy. By the time the guilty pleas are composed, the government usually has assembled a good deal of evidence: subpoenaed documents, deposition, tape recordings, and public information on the structure of the market and business practices in the industry. This body of evidence will have been analyzed for sentencing purposes. In particular, DOJ prosecutors typically will have done at least preliminary estimates of the size of the affected market, the market shares of the defendants or major sellers, and perhaps the overcharges generated by the conspiracy. When guilty pleas are made, much of this evidence will be unavailable to private plaintiffs.

The DOJ sentencing memoranda contain affected sales, but only a small proportion of these memoranda are published. The fines themselves cannot be used to infer sales, market shares, or overcharges because discounts are not systematic and vary widely across defendants. Since 2005 the DOJ has published U.S. damages in selected guilty-plea agreements, but these numbers may be negotiated compromises between prosecutors and defendants.

Private plaintiffs should be consciously assisted by government plea bargaining because, just as is the case of government fines, one of the purposes of treble damages is to deter future violations. The greater the sum of public *and private* punishment, the greater the deterrence effect. Regrettably, public prosecutors in the global price fixing cases studied in this book often made compromises that disadvantaged piggyback private suitors. No plea agreements are released for amnesty parties. Plea agreements are vague on the initial date of the conspiracy, placing it as much as two years later than the actual date. The DOJ sometimes chooses to prosecute only those cartels with large sales or skip markets as part of unannounced side-deals. All these practices place private plaintiffs at informational and legal disadvantages.

A similar disadvantage occurs when private plaintiffs are offered settlements before criminal-guilty pleas are made public. When the

government is still negotiating a plea with defendants (or has sealed an agreement), plaintiffs are at a severe informational disadvantage. Not only is economic intelligence difficult to come by, but also there is great uncertainty about the guilt of the defendants themselves. In the lysine and citric acid cases, defendants dangled relatively cheap settlements in front of the federal class of plaintiff's months before the guilty pleas were announced. In the vitamins case class counsel offered a low-ball settlement to the Big Six on the basis of a hasty and overly conservative estimate of damages. Hold-outs from the federal class were rewarded for their patience, but the smaller companies remaining in the class paid dearly for their impatience.