(i.e., arguments showing that the kinds of policies you favor will advance the public welfare, or secure certain important rights, or ensure certain forms of justice).

4. In your judgment, should a U.S. company operating in a foreign country in which collusive price-fixing is not illegal obey the U.S. laws against collusion? Explain your answer.

Web Resources

Readers who want to conduct research on the market issues in this chapter through the Internet might want to start with the American Antitrust Institute, which provides cases, articles, and links on price-fixing, mergers, vertical price restraints, and so on at their web site (*http://www.antitrustinstitute.org*). Also excellent is Oligopoly Watch, which provides a continually updated web site with current information on price-fixing activity, mergers, and so on (*http://www.oligopolywatch.com*). The Federal Trade Commission (FTC) provides access to its antitrust decisions and proceedings (*http://www.ftc.gov*), and the U.S. Justice Department does the same (*http://www.usdoj.gov/atr/index.html*). Additional links and important legal cases relating to all these issues can be found through the excellently organized and copious resources of Hieros Gamos (*http://hg.org/antitrust.html*), or through the American Bar Association (*http://www.abanet.org/antitrust*).

CASES

Intel's "Rebates" and Other Ways It "Helped" Customers

Explore the Concept on mythinkinglab.com

On November 12, 2009, Intel Corp. gave Advanced Micro Devices (AMD) $1.25 billion to settle a lawsuit AMD filed against it in 2005. Intel's CEO Paul Otellini said he agreed to pay $1.25 billion to settle AMD's lawsuit because he no longer felt the "time and money [spent fighting it] makes sense."[1] AMD's lawsuit accused Intel of being a monopoly and of using its monopoly power to unfairly keep computer companies from buying AMD's microprocessors. With about 70 percent of the market, Intel Corp. is the world's largest manufacturer of personal computer (PC) "microprocessors"—also called "computer chips," "microchips," or "processors"—tiny electronic devices that serve as the "brain" of a personal computer and carries out its basic operations. As the world's second largest maker of PC microprocessors, AMD is Intel's only real competitor, although it holds only about 20 percent of the PC processor market. It is difficult for other companies to get into the business of making PC microprocessors because of several "barriers to entry." First, Intel and AMD hold the patents for making the kind of microprocessors almost all personal computers use. Second, it costs several billion dollars to build facilities for making microprocessors. Third, Intel and AMD are so big and experienced that they can now make microprocessors for a lot less than a new company could, so if a new company tried to enter the market its prices would likely not be competitive with Intel's or AMD's.

AMD was not the only one that had accused Intel of using monopoly power to stifle competition. On May 5, 2009, the European Commission fined Intel a record $1.5 billion and said the company had used its monopoly power to unfairly block AMD from the market. On November 4, 2009, New York Attorney General Andrew Cuomo sued Intel for harming New York's consumers by using its monopoly power to keep computer makers from buying better AMD microprocessors. In June, 2008, South Korea's Fair Trade Commission ruled that Intel had used its monopoly power in violation of its antitrust laws. In 2005, Japan's Fair Trade Commission ruled that Intel had violated Japanese antitrust laws by paying companies to buy all or almost all of their processors exclusively from Intel.

Many of the activities Intel was being blamed for originated in a strategic mistake the company made in the late 1990s when it invested hundreds of millions of dollars developing a new type of microprocessor that would not use "x86 technology." x86 technology consists of certain instructions that are built into so-called "x86 microprocessors." All microprocessors must contain "instructions" that allow them to "read" and run software programs like games, word-processors, or web browsers. Because all x86 microprocessors contain the same instructions, the newest x86 microprocessors can generally read and use the same data and programs that ran on older x86 microprocessors. This means that when a customer who has been using a computer with an x86 processor buys a new computer with a more advanced x86 microprocessor, he or she does not have to throw away all his or her old programs and data because they will still work on the new computer.

This ability of each new generation of x86 microprocessors to run most of the programs that previous generations of x86 microprocessors could run is a major advantage for both consumers and businesses alike. However, from Intel's perspective, x86 microprocessors have a major disadvantage: AMD can legally make x86 microprocessors so Intel is forced to compete with AMD. Intel's biggest nightmare was that AMD someday might come up with an x86 microprocessor that was faster and more powerful than any of Intel's and then take over the market.

So when it invested in a new generation of microprocessors in the 1990s, Intel decided to develop and patent a microprocessor that did not use x86 technology. Since Intel alone would hold the patent for this new non-x86 processor, AMD would be legally barred from making it. With luck, Intel might eventually have the entire pc processor market to itself.

Intel called its new pc processor the "Itanium" and it was faster and more powerful than all previous generations of pc processors, but there was a problem. Since the Itanium processor did not use x86 technology, all software designed to run on current and older x86 processors would not work on the new Itanium unless the user first ran an "emulation" program that, in effect, forced the Itanium to imitate an x86 processor. But the emulation program slowed down the programs designed for x86 processors, sometimes to a frustrating crawl. This meant that when a consumer or business bought a new computer with the Itanium processor inside, its current software and data would not work at all well on the new computer. This was a major deterrent for buyers.

AMD had also developed a more advanced generation of PC processors during the 1990s. But AMD decided to stick with the x86 technology so its new processor could run software designed for x86 processors without using an emulation program. AMD called its new processor the Athlon. Since the Athlon was not slowed down by an emulation program when it ran x86 programs, all x86 programs ran extremely fast and smoothly on computers equipped with AMD's new processor. Not only could AMD's Athlon run x86 programs much faster and better than Intel's Itanium, it also used less electricity and AMD sold it for less than the Itanium. Intel's worse nightmare had come true.

When AMD and Intel marketed their new microprocessors in 1999, reviewers and users raved about AMD's fast and low-priced Athlon and heaped scorn on Intel's clunky Itanium. PC manufacturers flocked to put AMD's processor into their new computers and AMD's market share grew from about 9 percent to about 25 percent of the PC processor market, while Intel's fell from 90 percent to 74 percent.

But in 2003 and 2004, AMD's sales hit a wall. Computer manufacturers suddenly refused to buy AMD's processors. In 2002, Sony had put AMD's Athlon into 23 percent of its computers; by 2004 it had stopped using the Athlon completely. NEC went from using the Athlon in 84 percent of its desktop computers, to using it in virtually none. Toshiba went from using it in 15 percent of its computers in 2000, to using it in none by 2001.[2] Altogether, AMD's share of the Japanese PC processor market fell from 25 percent in 2002 to 9 percent in 2004.

What had happened? Tom McCoy, AMD's executive vice president for legal affairs, claimed in an article that the drop in orders for Athlon chips was "a matter of sheer exercise of monopoly power" by Intel.[3] McCoy claimed that Intel paid the Japanese companies—Sony, NEC, and Toshiba—millions of dollars in "rebates" provided they stopped buying AMD's microprocessors and used only Intel microprocessors inside their computers. But these payments, McCoy claimed, were not really rebates. A true rebate is a payment based on the number of products a customer purchases, and so are in effect discounts that are paid after the customer buys the product, unlike regular discounts which are subtracted from the price before the purchase. But the payments Intel was giving computer makers, McCoy asserted, were not related to the number of processors they bought. Instead, Intel handed over these payments when a company agreed to stop buying from AMD, regardless of the number of processors they subsequently purchased.

Moreover, McCoy wrote, Intel threatened companies by warning them that if they did not stop using AMD's microprocessors, Intel might stop supplying them with any microprocessors at all. The threat was a powerful one because even if they used AMD's microprocessors on some of their top-quality computers, every computer manufacturer still depended on Intel

for the microprocessors in all their other computers.[4] Because of its small size, AMD could not provide the full range of microprocessors that the larger companies needed.

Convinced that Intel was using unfair and illegal means to block them out of the market, AMD sued Intel on June 27, 2005. Intel's general legal counsel, Bruce Sewell, responded to AMD's claims by arguing that the reason computer makers stopped buying AMD's microchips was because once they started using them in large numbers and running many different programs on them, they found AMD chips did not run the programs as fast as they had first appeared to. "When AMD has good parts, they do fine," said Bruce Sewell, "When AMD has lousy parts, they don't do so well. That's what a competitive market is all about."

Bruce Sewell also defended Intel's rebates. If it is not wrong, he said, for a small company to build loyal customers by giving them more rebates when they agree to use your products exclusively, why should it be wrong for a larger company to do the same? Moreover, rebates in effect lowered the price of its computer chips and what was wrong with that? Ultimately, didn't that benefit the consumer? And why was it so important to relate rebates to the number of units a customer buys? If Intel gave larger rebates to those companies that agreed to use its products exclusively, and smaller rebates to those companies that would not make the same commitment, what was wrong with that? Wasn't a company's agreement to use Intel as its exclusive supplier valuable to Intel and so shouldn't Intel be allowed to reward that company with larger rebates than the discounts it offered other companies?

Because the AMD lawsuit was complicated and required gathering and reviewing a great deal of documentary evidence, it had still not gone to trial by the end of 2009. By then, however, AMD's allegations had convinced several foreign governments—including the European Union, South Korea, and Japan—that they should investigate Intel and their investigations ended with substantial fines of Intel for violating antitrust laws. The United States, however, did very little until, toward the end of 2009, the U.S. Federal Trade Commission (FTC) sued Intel for "illegal monopolization," "unfair methods of competition," and "deceptive acts and practices in commerce."[5]

The FTC said in its suit that its investigations had discovered what Intel's legal counsel Bruce Sewell had suggested: some software programs ran slowly on AMD's processors. But the reason was not because AMD's processors were inherently slow. They had found that Intel had changed the programs sold by software companies so that their programs would not work well on computers using AMD's computer chips. All software companies use "compilers" to convert thei programs into a form that will run on particular kind of computer chips. The compilers are provided by th companies that make the chips, in this case Intel an AMD, who are each supposed to provide compilers tha will allow programs to run on both their processors. Bu in 2003, the FTC said, Intel changed its compilers s that programs compiled with Intel's compilers woul run fine on Intel processors, but would run slowly o poorly on AMD's. Without their knowledge, when soft ware companies used Intel's compilers to process one o their programs, Intel's compiler secretly inserted bug into the program that slowed it when it ran on an AMI processor, but not on an Intel processor. Customer and reviewers blamed AMD's processor when their ne programs did not run well on a computer that had a AMD chip inside.[6]

The FTC also claimed that Intel had provided soft ware companies with "libraries" of software code tha were also designed to trip up programs when they ra on AMD microchips. The software code the FTC wa talking about were short bits of software that carry ou certain frequently used, but routine operations on x-8 processors. Software engineers insert these short bit of code into their programs instead of writing them ou each time they need them. Intel provided software engi neers with "libraries" consisting of dozens of these bit of code. However, the FTC claimed, Intel changed th software codes in its library so they would not work wel on AMD processors. Consumers and reviewers agai blamed AMD's chips when a program containing Intel' codes did not run well on a computer that used an AMI microchips.[7]

The FTC also said that Intel had paid computer mak ers to boycott AMD's processors by giving them what In tel called "rebates" although these payments required onl that a company agree not to buy AMD processors an were unrelated to the amount the company bought. Th computer manufacturer Dell, Inc., was a good example o how Intel paid computer makers to boycott AMD. Inte had began making significant quarterly "rebates" to com puter manufacturer Dell, Inc. in 2001, and Dell at tha time stopped using AMD's processors even though man of its customers said they wanted computers with AMD' processor.

Dell, which was founded in 1984 by its current CEO Michael Dell, who was then a student at the University o Texas at Austin, began when he started selling comput ers out of his dorm room. By 2001, Dell had become th largest PC manufacturer in the world and held 13 percen of the worldwide PC market. The company finished 200 with a net income of $2.24 billion, its largest so far.

In 2002, according to a Dell memo, Dell's chief oper ating officer (COO) met with several Intel officials. Befor

the meeting, Dell's lead negotiator had explained what he expected Intel's officials would say to Dell's COO: "without being blatant [Intel] will make it clear that Dell won't get more [payments] if we do [use] AMD [processors]. We'll get less and someone else will get ours."[8] During the meeting Intel officials said they were willing to do "whatever it takes" to get Dell not to use any AMD processors in its computers. According to the memo, Intel agreed at the meeting that its quarterly payments to Dell "should increase from the $70 million this quarter to $100 million."[9] But Dell had to continue to refuse to use AMD's processors.[10]

It was not difficult for Intel to pay the hundreds of millions of dollars it was giving Dell. Intel had unusually high profit margins of 50 percent that allowed it to accumulate $10.3 billion of cash at the end of 2001, and by the end of 2005 it held $14.8 billion of cash. In a February, 2004 email, Michael Dell remarked on Intel's profitability:

> [Intel's] profits in the 2nd half of 2001 were $1.397 billion on revenues of $13.528 billion. In the 2nd half of 2003 they were $4.885 billion on revenues of $16.574 billion. In other words their sales went up 22.5% and their profits went up 350%! Or said another way, their revenues went up $3.046 billion and their profits went up $3,488 billion!! Not even Microsoft can do that.[11]

Although many smaller companies started using AMD's chips, Dell feared retaliation from Intel if it tried to do the same. In an email, a Dell executive noted that if "Dell joins the AMD exodus" the consequences would be costly for Dell. He noted that Intel's CEO and Chairman "are prepared for jihad if Dell joins the AMD exodus. We will get ZERO [payments] for at least one quarter while Intel 'investigates the details'—there's no legal/moral/threatening means for us to apply and avoid this."[12]

Although Dell complained that its refusal to use ADM processors was hurting its sales, Intel kept Dell loyal, throughout 2004, by increasing its quarterly payments to $300 million per quarter, an amount equal to almost a third of Dell's quarterly net income and apparently enough to compensate Dell for any sales declines.

But Dell continued to lose market share and its CEO, Michael Dell, became increasingly frustrated. On November 4, 2005, Intel's CEO, Paul Otellini wrote an email saying that he had just received "one of the most emotional calls I have ever, ever had with [Michael Dell]." Otellini noted that "[Michael Dell] opened by saying 'I am tired of losing business'... He repeated it 3–4 times. I said nothing and waited. [He said] he has been traveling around the USA. He feels they are losing all the high margin business to AMD-based [computers]. Dell is no longer seen as a thought leader."[13] A week later, Michael Dell sent an email to Otellini complaining that "We have lost the performance leadership and it's seriously impacting our business in several areas." Otellini responded to Dell's complaints by pointing out how much Intel was paying Dell: "We are [now] transferring over $1 billion per year to Dell for its efforts. This was judged by your team to be more than sufficient to compensate for the competitive issue."[14] On November 25, Michael Dell wrote in an email to Otellini that "None of the current benchmarks and reviews say that Intel-based systems are better than AMD. We are losing the hearts, minds and wallets of our best customers."[15]

In spite of realizing that boycotting AMD's processors was hurting its revenues, Dell remained so loyal to Intel that in February, 2006, Otellini joked that Dell's CEO was "The best friend money can buy."[16] Intel continued to increase its payments to Dell through 2005 and 2006 until they reached a high of $805 million a quarter in early 2006, an amount equal to 104 percent of Dell's net income per quarter that year.

But 2006 was the year Dell finally broke away from its agreement to not use AMD processors. That year it purchased Alienware, a computer manufacturer that made high-end gaming computers with AMD microprocessors. In April of that year Michael Dell sent an email to his top executives which said: "We have been looking at the situation for a long time, and have decided to introduce a broad range of AMD based systems into our product line to provide the choice our customers are asking for." In the second quarter of the year, perhaps testing Intel's reaction, Dell announced a single new line of high-end computers with AMD chips inside. That quarter its payments from Intel dropped to $554 million. The next quarter Dell announced additional lines of PCs with AMD processors inside and Intel paid it only $200 million.

Intel's Board Chair told Intel's CEO that the company should respond harshly to Dell's actions: "I think you should reply in kind. Not a time for weakness on our part. Stop writing checks immediately and put them back on list prices [i.e., on prices with no discounts or rebates].[17] The next day Intel CEO Otellini instructed his people that "We should be prepared to remove all [payments] and related programs. Post haste ... then we ought to enter negotiations."

Now subject to Intel's punishment, Dell received no more "rebates." In 2007, Dell's net income fell to $2.58 billion, down from $3.57 billion in 2006. The company recovered a bit in 2008 when it posted a net income of $2.95 billion, but then it began a downward

slide to $2.48 billion in 2009 and $1.43 billion in 2010. Between 2001 and 2006, Intel had pumped an estimated total of about $6 billion into Dell's income figures. Because Dell had not reported that most of its profits during those years were cash it was receiving from Intel, the U.S. Securities and Exchange Commission (SEC) accused Dell and its officers of deceiving investors who had been told by the company that it's high profits were due to its ultra-efficient management of its supply chain, its direct-sales strategy, its cost reduction initiatives, and the declining costs of computer parts.[18] Dell had become one of the most admired companies in America because it was falsely assumed that its strong profits were due to the company's management skills.

Intel pressured other big companies, like HP and IBM, into refusing to use AMD processors. Unlike Dell, HP and IBM did not agree to completely boycott AMD's processors. In HP's case, Intel got HP to agree to limit its purchases of AMD processors to 5 percent or less, and Intel agreed to give HP a "rebate" of $130 million, spread out over a year.[19] IBM agreed to only use AMD processors in its "High Performance Computers."[20]

The FTC's lawsuit against Intel never made it to court. On Wednesday, August 4, 2010, the FTC announced that without admitting guilt, Intel had agreed to settle the FTC's antitrust lawsuit. In a press release the FTC wrote that under the settlement, "Intel will be prohibited from conditioning benefits to computer makers in exchange for their promise to buy chips from Intel exclusively or to refuse to buy chips from others; and [from] retaliating against computer makers if they do business with non-Intel suppliers by withholding benefits from them." In addition, Intel was prohibited from using its compilers or its libraries of software code to inhibit the ability of programs to run on competitors' microprocessors. Some observers argued that the restrictions of the settlement no longer mattered since Intel had once again taken the lead in the x86 processor market and AMD was again a trailing competitor. In the first quarter of 2006, according to CPU Benchmarks, AMD's market share had climbed as high as 48 percent and Intel's had fallen to 51 percent. But AMD's share dropped after that and by 2011, Intel had 71 percent of the x86 microprocessor market while AMD was down to 25 percent.

Questions

1. In your judgment is Intel a "monopoly"? Did Intel use monopoly-like power; in other words, did Intel achieve its objectives by relying on power that it had due to its control of a large portion of the market? Explain your answers.
2. In your judgment, were Intel's rebates ethical or unethical? Explain your answer.
3. Was it unethical for Intel to use its compilers and its libraries of software code in the way it did, or is this permissible for companies in a free market economy? Explain your answer.
4. Were Intel's rebates unethical? Explain why or why not.
5. In your view, did Intel violate either of the two key sections of the Sherman Antitrust Act? Explain.

Notes

1. David Goldman, "Intel and AMD Reach $1.25B Settlement," *CNNMoney.com*, November 12, 2009.
2. Roger Parloff, "Intel's Worst Nightmare: Dwindling Market Share Isn't the No. 1 Chipmaker's only Problem, says *Fortune's* Roger Parloff. It needs to Mount a Fierce Defense to AMD's Epic Antitrust Lawsuit," *Fortune Magazine*, November 16, 2006.
3. Ibid.
4. Ibid.
5. David Goldman, "FTC Sues Intel Over Chip Dominance," *CNNMoney.com*, December 16, 2009.
6. *In the Matter of Intel Corporation, a Corporation, The United States of America Before the Federal Trade Commission*, Docket No. 9341, Complaint, December 16, 2009, paragraphs 56–61.
7. Ibid., paragraphs 62–71.
8. *State of New York, by Attorney General Andrew W. M. Cuoma, Plaintiff, vs. Intel Corporation, a Delaware Corporation, Defendant*, Complaint in the United States District Court for the District of Delaware, November 3, 2009, paragraph 90.
9. Roger Parloff, "Intel Settlement: The Power of Emails," *Fortune Magazine*, November 13, 2009.
10. Ibid.
11. Ibid., paragraph 27.
12. Ibid., paragraph 105.
13. Ibid., paragraph 135.
14. Ibid., paragraph 136.
15. Ibid., paragraph 137.
16. Parloff, "Intel Settlement: The Power of Emails."
17. Ibid., paragraph 142.
18. Justin Scheck and Kara Scannell, "SEC: Intel Cash Inflated Dell," *The Wall Street Journal*, July 23, 2010.
19. *New York v. Intel*, Complaint, paragraph 170.
20. Ibid., paragraph 211.