1. Introduction

There have been two times in the past when a company has so dominated a significant part of the computing industry that the issue of whether antitrust laws have been violated has been raised. The first was IBM, which, after the introduction of their 360 series, dominated the mainframe computer market. The second was Microsoft whose operating systems dominated the software side of the PC market. I will look at these two cases and also at the European Commission antitrust suit and the Sun suit against Microsoft.

In a current case AMD has sued Intel claiming that Intel has used illegal tactics to maintain a near-monopoly over the x86 processor market. A significant difference in this lawsuit, as compared to the major IBM and Microsoft suits, is that it has been brought by another company, whereas the other suits were brought by government agencies.

The question is whether one should punish or break up a company just because they have been so much more successful than any other company in their field, and also whether the dominant company is using their dominant position unfairly to squash competition.

As an example, Microsoft got into the Web browser area relatively late. When they entered the market with Internet Explorer they made it impossible to sell their operating system without IE installed on it. At that point most users didn’t bother to install Netscape, which had been the major browser, and so Netscape’s market share plummeted and effectively IE took over. Was this an unfair use by Microsoft of their dominance in the operating system market and an attempt to use that dominance to destroy a competing company, or was it perfectly permissible to only sell their OS with IE installed?
2. Antitrust Division of the Department of Justice and the Sherman Antitrust Act

The US Department of Justice (DoJ) Antitrust Division\(^1\) is responsible for enforcing the antitrust laws in the US. They describe their mission on their Web page as:

For over six decades, the mission of the Antitrust Division has been to promote and protect the competitive process — and the American economy — through the enforcement of the antitrust laws\(^2\). The antitrust laws apply to virtually all industries and to every level of business, including manufacturing, transportation, distribution, and marketing. They prohibit a variety of practices that restrain trade, such as price-fixing conspiracies, corporate mergers likely to reduce the competitive vigor of particular markets, and predatory acts designed to achieve or maintain monopoly power.

There are eight major antitrust acts in the US, of which the most famous is the Sherman Antitrust Act, which has eight sections, described briefly below:

**Sherman Act, 15 US Code:**

1. **Trusts, etc., in restraint of trade illegal** Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal.

2. **Monopolizing trade a felony; penalty** Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony.

3. **Trusts in Territories or District of Columbia illegal; combination a felony** Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is declared illegal.

4-6. These are procedural sections which I am ignoring.

7. **Conduct involving trade or commerce with foreign nations** Sections 1 to 7 of this title shall not apply to conduct involving trade or commerce (other than import trade or import commerce) with foreign nations unless--

1. such conduct has a direct, substantial, and reasonably foreseeable effect--

\(^1\) [http://www.usdoj.gov/atr/overview.html](http://www.usdoj.gov/atr/overview.html)

A. on trade or commerce which is not trade or commerce with foreign nations, or on import trade or import commerce with foreign nations; or
B. on export trade or export commerce with foreign nations, of a person engaged in such trade or commerce in the United States; and
C. such effect gives rise to a claim under the provisions of sections 1 to 7 of this title, other than this section.

8: “Person” or “persons” defined  The word “person”, or “persons”, wherever used in sections 1 to 7 of this title shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

Section 2 is fairly strong. Basically it says that if a corporation is a monopoly, or attempts to restrain trade, then a felony has been committed. This led to both of the big cases that I will discuss here, US vs. IBM and US vs. Microsoft.

3. US vs. IBM

The major suit against IBM was filed on January 17, 1969, and it is often claimed that deciding to get DoJ to file this suit was the last decision made by President Johnson before he left the White House. When President Nixon was inaugurated on January 20th this case had already been filed.

The trial did not get going until May 19, 1975, and lasted six years, until the case was withdrawn by the head of the Antitrust Division of the DoJ on January 8, 1982, who stated that their case had no merit. Obviously a lot had gone on in this thirteen-year period.

First, the charges. Antitrust violations were charged based on an Antitrust Division claim that IBM was violating Section 2 of the Sherman Act by either monopolizing or attempting to monopolize the business computer system market. There were three major charges that made up the lawsuit:

1. IBM had bundled systems so that it was impossible to buy a system except as a package, including hardware, software, peripherals, and maintenance,
2. IBM had given significant discounts to universities, and
3. IBM had pre-announced systems and models knowing that they could not meet the delivery dates that were announced, sometimes for several years.

When this all occurred it was a time when the phrase “nobody ever got fired for buying IBM” still meant something. I.e., buying from IBM was the safe choice. It was also a
time when a number of companies were producing look-alikes of IBM hardware and peripherals, and other companies were created to just maintain IBM systems.

Looking at the three main charges in more detail:

**Bundling:** As mentioned above, a number of companies were created to produce IBM look-alike (clone) hardware. E.g., Amdahl\(^3\) produced mainframes which would run all of the IBM operating systems and other software, STC made disks that were equivalent to IBM disks, etc. There were also companies that would maintain your IBM system for you. It was claimed in the suit that IBM only sold bundled systems so that the processor, software, maintenance, and standard peripherals had to be bought from IBM. If, for some reason, your application needed more peripherals (e.g., disks, tapes, and printers) than was normal for the selected processor, then you could buy the additional peripherals from companies like STC, often much cheaper, as long as you were willing to deal with a mixed disk (or other peripheral) farm, and were willing to deal with the fact that your IBM maintenance probably didn’t include any problems that occurred when their processor was talking to the foreign peripheral. People today might not realize the value of the peripheral market. For example in 1973 IBM announced their huge (at the time) 3330-11 disk, which cost $111,000 and gave 400 MB of storage\(^4\). Main memory during the same time period cost nearly $100,000 per megabyte.

**University Discounts:** Probably because we liked these discounts the people in universities never liked this part of the suit. The claim was that IBM dropped their prices to below competitive levels in order to shut others out of this significant market. There was also a claim that this led to university graduates being much more likely to support the purchase of familiar IBM systems once they took jobs in industry. Later Apple managed to dominate the K-12 education market by initially making very generous donations to schools throughout the US.

**Pre-announced Systems:** The claim was that if a competing company was about to produce a better machine than IBM had in some niche of the market then IBM would announce a new system that had much better capabilities, and that often these systems were vaporware which didn’t exist at that time. This included the first IBM 360, which was announced in 1964, a year before the first system delivery. At that point it was claimed that many companies wouldn’t buy the system from IBM’s competitor, but would pre-order the new IBM system, only later seeing huge delivery delays.

The trial was delayed, partially because IBM overwhelmed DoJ with the number of exhibits that they submitted. It was claimed that IBM had far more lawyers assigned to the case than DoJ did. The trial finally began on May 19, 1975, and lasted for nearly seven years before the DoJ gave up on January 8, 1982. During this time there were nearly 1000 witnesses and tens of thousands of exhibits examined.

---

\(^3\) Gene Amdahl had been the main architect of the IBM System/360 computers, but left to form his own clone company to compete with IBM.

\(^4\) Now the price per megabyte would be about \(\frac{1}{1000}\) of this price for server disks, or less.
The decision to withdraw from the case was made by William Baxter, who was head of the Antitrust Division at DoJ, and so was in charge of the government case. He claimed, after ten years, that the government case was without merit. He said that the Antitrust Division was backing off antitrust cases because their opinion of Sherman Section 2 violations had changed during the last ten years. He also said that the case had been too expensive, and that IBM had come to dominate the market not because they engaged in predatory practices but because they were just better than their competitors.

A sour note was raised later when it was found that William Baxter hadn’t released the fact that he was being paid as a consultant by a law firm which worked for IBM on other antitrust cases. He was never charged with an ethical violation.

One big difference was the political climate; when the case was submitted it was during (just) the Johnson administration, whereas when it was abandoned it was during the Reagan administration. These two administrations had very different views towards big business, and vice versa.

One side effect of the IBM case was that large companies realized that if they were charged under one administration then there was at least a reasonable chance that everything could change if they waited until a friendlier administration was in place, with different leaders in DoJ.

4. US vs. Microsoft

This first began with the Federal Trade Commission looking at Microsoft’s business practices beginning in about 1990. They were trying to determine whether Microsoft’s rapid success had happened because they had violated laws or whether, as Microsoft claimed, that they had been valuable to the US economy because of rapidly increasing software capabilities and reducing prices. The case was passed to the DoJ Antitrust Division when the FTC could not agree on whether or not they should proceed. In 1984 the Antitrust Division and Microsoft agreed that Microsoft would stop using certain practices that they claimed unfairly discouraged OS customers from trying alternative programs. Microsoft agreed to the changes, but did not agree that they had been at fault. At the same time it was believed that Microsoft’s dominance of the new PC OS market was about to diminish significantly. When IBM had first produced PCs it had been expected that they would use the CP/M OS, but a failure in negotiations led them to deal with Bill Gates instead. As part of the agreement Gates and Microsoft were given considerable latitude on how they could sell their operating system, and later IBM became concerned at the increasing power of Microsoft. So in 1984 they produced the OS/2 operating system to replace Microsoft’s OS, and it was felt that probably both operating systems would succeed. However this didn’t happen; a year later Microsoft released Windows 95, and OS/2 never survived the attack.
The first major case was in 1995 as a result of the release of Windows 95. The system came with Internet Explorer, and DoJ claimed that Microsoft was not letting hardware vendors sell '95 unless they exclusively included IE as the browser with the system. They also claimed that Microsoft was violating the 1994 agreement. This was finally settled three years later with an agreement that manufacturers could sell a version of '95 that didn’t include IE.

The most famous case was initiated by DoJ and 19 states in 1998. Some of the major issues related to Microsoft’s pricing structure and again whether Windows could be released without IE, or possibly with Netscape as well. Once again the complaints were under Section 2 of the Sherman Antitrust Act. In April 2000, the judge in charge of the case, Thomas Penfield Jackson, ruled that Microsoft was in violation of the Sherman Act, and ordered that the company must be split into two pieces, one for operating systems and one for applications software. Microsoft appealed this to the US appeals court, which decided to stay the breakup order while it was under further review. In 2001 the Court of Appeals agreed with Jackson that Microsoft was in violation, but overturned his ruling that the company should be split into two.

Once again the case was now under a new administration. While it had been filed under Clinton’s Presidency, and that administration had requested the breakup, it was now under the Bush Presidency. The new administration settled the case with Microsoft with the agreement that Microsoft must make it easier for competing companies to get their products onto the desktop. The decision to settle was opposed by half of the states that had joined DoJ in the lawsuit.

Four years later, Judge Jackson still supported his decision to break up Microsoft. In June, 2005, he said that “Windows is an operating-system monopoly, and the company's business strategy was to leverage Windows to achieve a comparable dominion over all software markets,” that “Microsoft has won the browser war in the United States,” and that “the Microsoft persona I had been shown throughout the trial was one of militant defiance, unapologetic for its past behavior, and determined to continue as before.”

5. European Commission vs. Microsoft

While US vs. Microsoft was going on the European Union was also pursuing an antitrust case against Microsoft, which had been initiated in December 1998 by a complaint from Sun Microsystems, which complained that Microsoft had refused to provide interface information necessary for Sun to be able to develop products that would talk properly with the ubiquitous Windows PCs, and hence be able to compete on an equal footing in the market for work group server operating systems. In March 2004 the European Commission ruled:

The European Commission has concluded, after a five-year investigation, that Microsoft Corporation broke European Union competition law by leveraging its
near monopoly in the market for PC operating systems (OS) onto the markets for work group server operating systems(1) and for media players(2). Because the illegal behaviour is still ongoing, the Commission has ordered Microsoft to disclose to competitors, within 120 days, the interfaces(3) required for their products to be able to ‘talk’ with the ubiquitous Windows OS. Microsoft is also required, within 90 days, to offer a version of its Windows OS without Windows Media Player to PC manufacturers (or when selling directly to end users). In addition, Microsoft is fined €497.2 million⁵ for abusing its market power in the EU.⁶

To meet the requirement of the ruling, in July 2005 Microsoft released Windows XP N⁷ in Europe, which did not include their Media Player. However they priced it at exactly the same price as their regular Windows XP, and so none of the major software stores in Europe appear to have carried it. Meanwhile, RealNetworks, which had become a party to the original EC complaint, settled with Microsoft in October, 2005. Microsoft paid $460 million to RealNetworks to settle all antitrust claims. It also agreed to pay $301 million in cash to support RealNetworks’ music and game efforts, and to promote RealNetworks’ Rhapsody subscription music service on its MSN Web business. Microsoft can earn credits toward that $301 million by signing up subscribers via MSN.

In July 2006 the European Commission ruled against Microsoft again, saying that Microsoft “did not even come close” to providing the technical information that they were required to give to their competitors under the 2004 ruling. They fined Microsoft €1.5 million per day beginning on December 16, 2005, for a total at the time of the ruling of €280.5 million.⁸ This daily fine will continue until they determine that Microsoft is in compliance, although they also made it clear that they expect Microsoft to be in compliance with the order by July 31, 2006, with the threat that if they are not then the fine will increase to €3 million per day.⁹

Microsoft appealed all of the EC decisions, including the daily fine, since they said that they are making “massive efforts” to comply with the 2004 ruling. This was ultimately settled.

Microsoft has also not yet satisfied a similar disclosure ruling that came out of the US Department of Justice case in 2002, and this has returned to the US courts, where the judge made apparently supportive comments on the approach being taken by the Europeans.

---

⁵ $613 million at the time.
⁷ Microsoft had originally proposed that the OS would be called Windows XP Reduced Media Edition, but this was blocked by EC regulators. The box on XP N still states that the N stands for Not With Windows Media Player.
⁸ $357 million at the time. A fine for non-compliance is apparently unprecedented in Commission rulings.
⁹ At July 2006 conversion rates €3 million per day comes to about $1.4 billion per year.
It was anticipated that the problems between Microsoft and the EC might continue as a result of the Vista release in 2007. The Commission in their 2006 ruling included a comment/warning about Vista that “the launch next year will hopefully be in a shape in which all those 2004 decision items are taken into account.”

For a while things seemed to be settled between Microsoft and the EU. In September 2007, Microsoft lost their appeal against the European Commission's case, and in October 2007 Microsoft decided that they wouldn’t appeal the decision any more.

However in February 2008, the EU fined Microsoft another €899M because they complained that Microsoft still wasn’t satisfying the March 2004 ruling. Microsoft is currently (October 2008) appealing against that fine and is asking the European Court of First Instance to clarify their responsibilities to the EU with a hope that this will stop future legislation against them.

6. Sun vs. Microsoft

In 1997 Sun Microsystems sued Microsoft for $37 million in a dispute over Microsoft’s use of the Java language. Java had been developed by Sun and then released to the community, but Sun retained control over the language. Sun claimed that Microsoft was in breach of contract because they had modified and extended Java so that it would work more efficiently on Microsoft systems, and was claiming that their language was Java-compatible, which Sun claimed was no longer true.

The case was settled in 2001 with Microsoft agreeing to pay Sun $20 million, but with Sun agreeing to let Microsoft continue to use their version of Java in current products, and products under development, for another seven years.

Both companies claimed some level of victory in the settlement. Sun’s CEO said “It’s pretty simple: This is a victory for our licensees and consumers. The community wants one Java technology: one brand, one process and one great platform. We've accomplished that, and this agreement further protects the authenticity and value of Sun's Java technology. Microsoft’s spokesman said “This settlement is great news for the industry and Microsoft, as it means we can focus all our resources to help enable the next generation of software with Web services.”

A side effect of this long dispute was that Microsoft developed C# for .NET, partially in response to the lawsuit. It is usually believed that without the Sun suit they would have more directly modified Java instead.
7. AMD vs. Intel

Of current computer-related lawsuits, the biggest is the antitrust lawsuit that AMD initiated against Intel on June 28, 2005, which accused Intel of attempting to maintain a monopoly through illegal practices. This suit will continue into 2008 unless there is a settlement (which seems very unlikely). This lawsuit follows a decade of other lawsuits between the two companies, which are the only significant players in the x86 processor market, which means in the PC processor market.

In effect AMD is claiming in this antitrust lawsuit that whenever their market share gets big enough to threaten Intel that Intel then puts pressure on customers to only buy Intel processors. They claim that a particularly egregious example of this has happened in Japan, where their market share dropped from 25% in 2002 to 9% in 2004, mainly because their share with some large Japanese companies dropped precipitously. E.g., their share of Sony and Toshiba purchases dropped to 0%.

Intel claims that these drops were based on the relative quality of their offerings so that when AMD jumped ahead of Intel in technology their market share went up but when Intel was ahead AMD’s share dropped because nobody had an incentive to buy inferior products from the second largest vendor. AMD claims that Intel gave huge discounts and other incentives to Japanese customers in return for exclusive deals or near exclusive deals. Intel denied this and said that they don’t pay people to buy their processors.

Overall AMD’s share is now at about 22% for PCs and 26% for desktop servers. They believe that when a company gets to about $\frac{1}{3}$ market share the effects of Intel’s dominance will disappear and that Intel is using predatory practices to stop them getting to that point.

Intel points out that the diminishing AMD Japanese market share occurred around the time that the Celeron processor was released, which became the dominant processor used in laptops.

A possible weakness is that the AMD lawsuit named 38 companies who they claimed were intimidated by Intel, but none of these companies have supported AMD in the suit. AMD claims that this is because the companies are scared of retribution. However they also based their suit on a finding by the Japan Fair Trade Commission that Intel had followed the practice of requiring PC makers to limit the use of competitors' chips in exchange for monetary rebates. Intel agreed to halt various procedures in Japan, but disagreed with the agency’s findings of fact and applications of the law.

This case will last for a couple more years. A protective order designed to limit information disclosure in order to protect trade secrets was submitted on May 22, 2006. The parties will meet again in September 2006 to agree on a trial date, and the cut-off for document production will take place on December 31, 2006. Depositions will follow throughout 2007, with a trial expected some time in 2008 (AMD is pushing for early 008, Intel for late 2008). In May 2006 Intel asked a judge to dismiss part of the case because
they claimed that US antitrust laws do not have jurisdiction over sales in Europe and Asia. AMD responded that its lawsuit is valid, because it deals with exclusionary conduct perpetrated by one US-based company against another US-based company, and so regardless of where they occur, those actions harm consumers worldwide by raising prices and stifling innovation. AMD has issued subpoenas to force 33 companies to give records and depositions in the case. AMD has also filed a similar lawsuit in Japan, and lodged complaints with the European Commission, the Korean Fair Trade Commission and the Japan Fair Trade Commission.