AMD v. Intel: American Antitrust Law in the 21st Century

David Albrecht

On June 27, 2005, Advanced Micro Devices, Inc. (AMD) wrote the latest chapter in American antitrust law.[1] Intel, widely known for their popular "Intel Inside" and "Centrino" advertising campaigns, had attained monopoly control of the x86 CPU market.[2] Citing Intel's dominant position in the markets, AMD filed a complaint which alleged Intel's willful and deliberate "illegal maintenance of a monopoly".[3] This paper will examine the history of antitrust in the United States from a historical, legal, and economic standpoint, the relevant history of the computer industry, and explore and analyze the issues of *AMD v. Intel*.

I. Historical Perspective

Monopolies have been the subject of philosophical and political debate for at least half a millennium. As far back as the sixteenth century, Queen Elizabeth I had granted monopoly patents.[4] If a commercial entity had the blessing of the crown, and a substantial amount of capital (the Crown sold the patents, and they were quite expensive) the business entity could execute a lawful agreement to procure sole distribution rights.[5] Such "patent rights" entitled their holder to a state-enforced right to exclusively distribute a good or service to the subjects of the Crown.[6] (It is worth mentioning that the basis for modern industrial patents was derived from the Crown's practice; however, the Crown used patent rights as a revenue-raising measure, not as an incentive to encourage innovation.[7]) Patent rights were obviously harmful to the subjects of Britain, as they placed essentially arbitrary restrictions on the trade of everyday citizens[8]. A member of Parliament under Elizabeth I exclaimed in frustration, "I cannot…conceive with my heart the great grievances that the town and country which I serve suffereth by some of these monopolies; it bringeth the general profit into a private hand, and the end of all is beggary and bondage of the subjects."[9]

The English distaste of state-granted monopolies propagated into United States jurisprudence via English common law. In 1776, the framers of the Massachusetts constitution wrote, "Monopolies are odious, contrary to the spirit of free government…and ought not be suffered."[10] Although the framers' grievance concerned the previously discussed Crown-granted

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[1] June 28 2005, advertisement placed in Wall Street Journal, Section A
[2] June 27 2005, AMD Brief filed in US District Court of Delaware – See "Civil action No. 05-441" filed in Delaware district court for further details. This citation refers to page 1.
[3] "An Open Letter from Hector Ruiz, AMD Chairman, President, and Chief Executive Officer", available at http://www.amd.com/breakfree
[4] Geisst, Charles R. Monopolies in America: Empire Builders and Their Enemies from Jay Gould to Bill Gates. Oxford University Press, 2000. This citation refers to page 13.
[5] *Id*, p. 13
[6] *Id*, p. 14
[7] *Id*, p. 14
[8] *Id*, p. 14
[9] *Id*, p. 14
[10] *Id*, p. 13

monopoly rights, patent rights were merely one facet of a more widely held belief, that is, lack of tolerance for trade restrictions.[11] It is fairly clear, however, that early lawmakers did not envision a private business growing to the level of influence previously possible only with a state mandate. In the 1830s, America "was a country that was ruled locally by the town meeting and in which the economy and the social life were mostly agrarian. Every man was equal to every other, and a sense of fairness prevailed."[12] It is hardly surprising that the colonists did not pass legislation preventing the monopolistic trusts which would follow; business simply was not conducted on the scale of national trusts in colonial times.[13]

The Industrial Age irreversibly altered the character of American business. The "mostly agrarian" society of the 1830s gave way to railroads, petroleum refining, and steelmaking.[14] The Herculean capital expenditures necessary to profitably operate a business in the Industrial Age dwarfed the capital required to operate the "mostly agrarian" businesses of the past.[15] New economies of scale were necessary to operate plants efficiently, and the railroads gained a powerful foothold as businesses realized the need to move goods quickly over long distances.[16] The focus of American business quickly expanded the sub-national and even national level as a matter of both efficiency, and necessity.[17] Business owners of the time began to form strategic alliances with other businesses, often in related fields.[18] Some of these alliances were friendly, but most involved the hostile takeover of a smaller business by a larger one; the trust became the *de facto* capital structure for such amalgamations.[19] Much like a holding company, a trust allowed a single organization, the "shell company", to hold stock and other assets of dominated subsidiaries "in trust", a practice very similar to how a modern-day holding company operates.[20]

John Moody, a father of investment analysis, wrote in 1904 that "Monopoly is not a combination itself; the monopoly element, if there be any, is something distinct from the mere organization or Trust".[21] Black's law dictionary concurs with Moody's quote: a trust is "An association or organization of persons, or corporations, having the intention and power, or the tendency, to create a monopoly…" – note that the definition recognizes the distinction between trusts per se, and monopolies.[22] Although trusts may tend to engender monopolistic behavior, the monopolistic element does not follow from a trust as a matter of necessity.

II. The Public Policy Detriments of Monopoly

[11] *Id*, p. 13
[12] *Id*, p. 13
[13] *Id*, p. 13
[14] *Id*, p. 13
[15] *Id*, p. 13
[16] *Id*, p. 13
[17] *Id*, p. 13
[18] *Id*, p. 13
[19] *Id*, p. 14
[20] *Id*, p. 18
[21] *Id*, p. 18
[22] Black, Henry Campbell, M.A., with Nolan, Joseph R., Associate Justice, Massachusetts Supreme Judicial Court, and Nolan-Haley, Jacqueline M., Associate Clinical Professor, Fordham University School of Law. Black's Law Dictionary. Abridged Sixth Edition. West Publishing Company, 1991. This citation refers to page 696.

Economics has provided a framework to assess the damage done by monopolies. Monopoly is "a persistent market situation where there is only one provider of a kind of product or service".[23] Due to a lack of competition, the monopolist is able to produce less of a product at a higher price than in a competitive market situation.[24] Whereas in a competitive market, consumer and producer surplus are maximized, monopolies lead to a transfer of consumer surplus to the monopolist in the form of producer surplus.[25] The transfer of consumer surplus to the monopolist leads to a situation where society is worse than in a competitive market; in practical terms, this loss of surplus leads to a smaller supply of a higher-priced good, often of inferior quality and produced less efficiently than in a competitive market.[26] The end product: monopoly benefits a select few (the owners of the business) at the expense of society - and therefore, monopolies are contrary to public policy.[27] In more everyday terms, consumers are forced to choose second-best goods relative to a competitive situation, and the monopolist will have little incentive to innovate for fear of being overcome by competitors. [28]

If monopolies are harmful to social welfare, they should be prevented – but how does one know when a market is monopolized? This delicate question of fact will be addressed in the next section.

III. United States Antitrust Law

The two major federal statutes which prohibit monopoly behavior in markets are the Sherman Act, and the Clayton Act.[29] Congress passed the Sherman Act, 15 U.S.C. §1-7, in 1890. Section 2 of the Act states, in part, that "Every person who shall monopolize, or attempt to monopolize…any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony..."[30] To provide more succinct stipulation of illegal behavior and increase the credibility of the Sherman Act, Congress passed the Clayton Antitrust Act, 15 U.S.C. §12-27, in 1914.[31] The Clayton Act differs from the Sherman Act in that it was passed as a civil statute; it does not carry any criminal penalties. The Clayton Act is also longer and more specific than the Sherman Act.[32] The Sherman Act prohibits many specific practices which tend to engender monopoly; for instance, "No person…shall acquire…the whole or any part of the assets of another person engaged also in commerce…[where] the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly".[33] While

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[23] *Monopoly*, accessible at http://www.wikepedia.org/wiki/Monopoly, accessed December 12 2005.
[24] *Id.*
[25] *Id.*
[26] *Id.*
[27] *Id.*
[28] *Id.*
[29] "DOJ – Report Possible Violations", accessible at http://www.usdoj.gov/atr/contact/newcase.htm.
[30] 15 U.S.C. §2.
[31] DOJ website mentioned above.
[32] 15 U.S.C. §§12-27.
[33] *Id.*

the Clayton Act and Sherman Act together were more or less effective for industries revolving around the production and trade of physical assets, a number of acts were passed outlawing anticompetitive behavior in individual industries.[34] Such industry-specific acts included the Glass-Steagall Act, the Bank Holding Company Act, and the Public Utility Holding Company Act.[35] Acts targeting individual industries generally met with more success than the broad provisions of the Sherman and Clayton Acts.[36]

While the Sherman Act stated that "Every person [where the term *person* is also understood to mean *business entity*] who shall monopolize…any part of the trade or commerce among the several States…shall be guilty of a felony", it was conspicuously silent on what constituted such an "effort to monopolize".[37] Cases alleging violations of the Act were quick to fill the need for a standard "monopoly test". In *Unites States v. Aluminum Co. of America*, the Court held that 90% of the relevant market constituted monopoly power.[38] A slightly more relaxed standard of proof came a year later, when the Supreme Court decided *American Tobacco Co. v. United States*: "over two-thirds of the entire domestic field of cigarettes, and…over two 80% of the field of comparable cigarettes" constituted "a substantial monopoly".[39] The Court established the most broadly applicable standard in 1956, when it decided *United States v. du Pont & Co.* : "The ultimate consideration in determining whether an alleged monopolist violates §2 of the Sherman Act is whether the defendant controls prices and competition in the market for such part of trade or commerce as he is charged with monopolizing."[40]

Suppose that a company managed to benignly corner the market through superior product development or business acumen. How could the Court find fault with the company for operating a successful business? In 1966, the Supreme Court clarified the issue of natural market dominance in *United States v. Grinnell Corp*.[41] US prosecutors had filed a civil antitrust complaint alleging that Grinnell, a manufacturer of plumbing supplies and fire sprinkler systems, had monopolized their market in violation of §§1 and 2 of the Sherman Act.[42] At the time of the trial, Grinnell beneficially controlled over 80% of the shares outstanding of three separate companies engaged in burglary and fire detection services, and had lesser interests in at least twenty other companies in related lines of business.[43] As a result of its varied interests, Grinnell beneficially controlled 87% of its market.[44] Grinnell had engaged in such practices as "market allocation" whereby each dominated subsidiary was free from competition from the others, discriminatory price manipulation, and negotiation of service contracts valid for long periods of

[34] Geisst, p. 8
[35] *Id.*
[36] *Id.*
[37] 15 U.S.C. §1-7. Note that this portion of statute does not provide any criteria for what constitutes a "monopoly".
[38] *United States v. Aluminum Co. of America*, 148 F.2d 416, 429
[39] *American Tobacco Co. v. Unites States*, 328 U.S. 781, 797
[40] *United States v. du Pont & Co.*, 351 U.S. 377, 391
[41] *United States v. Grinnell Corp. Et. Al.*, 384 U.S. 563
[42] *Id.*
[43] *Id.*
[44] *Id.*

time (typically, five years).[45] Grinnell's actions worked to their benefit by erecting massive barriers to entry for would-be competitors.[46]

Grinnell maintained that their position as a monopolist came naturally in the course of business, but the Court held that Grinnell had nevertheless acted illegally in *maintaining* their monopoly.[47] Benign possession of monopoly power, in and of itself, did not violate the act - willful maintenance of such a monopoly through anticompetitive practices violated the Sherman Act.[48] To clarify judicial intent, the Court established a two-part test to determine a firm's legal standing with respect to the Sherman Act. Illegal monopolization was found to consist of "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[49] Grinnell failed to convince the court of a legitimate competitive need for its market allocation, pricing strategies, or lengthy service contracts; the Court found Grinnell's maintenance of their monopoly illegal.[50]

More recently, the public watched in awe as the United States Department of Justice brought an antitrust suit against Microsoft Corporation.[51] In 1994, the Department of Justice filed a complaint alleging Microsoft had illegally maintained their monopoly in the operating systems market via anticompetitive terms in its licensing and software developer agreements.[52] The parties executed a court-supervised consent decree, avoiding a full trial.[53] Three years later, the government filed a civil content action, claiming that Microsoft's bundling of Internet Explorer ("IE") 3.0 and 4.0 with Windows 95 violated the prior consent decree.[54] The District Court granted a preliminary injunction to prevent Microsoft's bundling of IE with Windows, and Microsoft appealed the issuance of the preliminary injunction to the D.C. Circuit Court of Appeals.[55]

U.S. v. Microsoft addressed many of the concerns faced when applying a statute over a century old to the modern computer industry. While the Sherman and Clayton Acts aspired to maintain level playing fields for material goods and services, the Court noted that "We decide this case against a backdrop of significant debate amongst academics and practitioners over the extent to which 'old economy' [Sherman Act] §2 monopolization doctrines should apply to firms competing in dynamic technological markets characterized by network effects."[56] The Court recognized that a great deal of modern business revolves around the construction of an infrastructure or "network" based on product standardization to accomplish some goal.[57] Since the utility of networked goods increases with greater participation in the network, single-firm

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[45] *Id.*
[46] *Id.*
[47] *Id.*
[48] *Id.*
[49] *Id.*
[50] *Id.*
[51] *United States of America v. Microsoft Corporation,* 346 U.S. App. D.C. 330
[52] *Id.*
[53] *Id.*
[54] *Id.*
[55] *Id.*
[56] *Id.*
[57] *Id.*

dominance often inevitably follows.[58] However, technological dynamism counteracts the tendency to monopolize to some extent – as the decision states, "Competition in such industries is 'for the field' rather than 'within the field'".[59] The decision notes that the tendency for technologies to appear and disappear so rapidly in the new economy might offset the adverse effects of monopoly, possibly to the point that monopolies are inevitable in networked industries.[60] As the decision notes, application of "old economy" antitrust law to such dynamic industries is far from settled.[61]

In addition to network effects, a rapid pace of change characterizes the new economy generally, and the computer industry in particular. The decision further notes that "…just over six years have passed since Microsoft engaged in the first conduct plaintiffs allege to be anticompetitive. As the record in this case indicates, six years seems like an eternity in the computer industry."[62] The decision goes on to note that the ability of the Courts to enact equitable remedies in such a dynamic economy seems rather questionable. Restoring competition to an anticompetitive market several years after the market has ceased to exist presents a unique challenge in crafting equitable remedies – is it even possible to use the Courts as a vehicle to level an anticompetitive playing field? The Court explains that

> "We do not mean to say that enforcement actions will no longer play an important role in curbing infringements of the antitrust laws in technologically dynamic markets, nor do we assume this in assessing the merits of this case…the government will continue to have an interest in defining the contours of the antitrust laws so that law-abiding firms will have a clear sense of what is permissible and what is not. And the threat of private damage actions will remain to deter those firms inclined to test the limits of the law".[63]

The Court realized the potential inadequacy of existing measures in restoring competition to a marketplace, and to remedy the issue it called for new laws. [64]However, laws are often based on hindsight; for circumstances which occasion legal failure, the Court endorsed retroactive damage claims as a vehicle to deter monopolists from testing the boundaries of the law.[65] The fast pace of business today represents to a markedly different world vis-à-vis the old economy of the Sherman Act and the railroad trusts. Today's marketplace may require a shift in the entire way the legal process is conducted, lest the Courts become purely a vehicle to seek damages for the wrongs of the past.

IV. Industry Background

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[58] *Id.*
[59] *Id.*
[60] *Id.*
[61] *Id.*
[62] *Id.*
[63] *Id.*
[64] *Id.*
[65] *Id.*

The textbook used in an entry-level introduction to computer organization and design states that a computer is "a mechanism that does two things: It directs the processing of information and it performs the actual processing of the information."[66] The component responsible for "doing the actual additions, multiplications, and so forth that are necessary to get the job done" is the central processing unit (CPU), more commonly called just the "processor".[67] At the baseline level, every computation device, from a wristwatch to a multibillion-dollar supercomputer, is identical: they share a processor, which performs arithmetic and logic operations, and memory, which the processor uses to store instructions and data.[68] The vast majority of today's computation devices differ only in their speed, quantity of storage, and the operations which their processors can perform.[69]

When writing a computer program, the program must be expressed in instructions which the processor can understand.[70] Suppose, for a minute, that we have a processor which can add, and negate numbers. Can the processor perform subtraction? Of course it can, but the process must be expressed in steps which the processor understands: "Negate the second number, and add it to the first number". Instructing the processor merely to "take the difference of the two numbers" is unacceptable, because the processor does not understand how to do perform the subtraction operation "on the metal", that is, without further decomposition. The basic menu of operations which a processor can perform, without any further reduction, constitutes the processor's "instruction set".[71]

When IBM defined the original personal computer (PC) standards in the early 1980s, it had many general-purpose processors available upon which to base its PC platform. Manufacturers such as Motorola, Zilog (the maker of the processor used in the TI-83[72], and the original Nintendo Game Boy personal video game unit[73]), National Semiconductor, Fairchild, Intel, and AMD were all engaged in the design and manufacture of general purpose processors at the time.[74] Each processor made use of unique and incompatible instruction set, meaning that they were not freely interchangeable; at the time, cross-compatibility was not the norm.[75] IBM chose Intel's architecture, which used what would later become known as the "x86" after Intel's naming of their processors (80*86*, 80*186*, 80*286*, 80*386*, 80*486*, and the 80*586* – more commonly called the "Pentium").[76] For strategic reasons, IBM did not accept Intel's position as a sole supplier of processors; IBM demanded that Intel contract with a third party to license production

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[66] Patt, Yale N., and Patel, Sanjay J. Introduction to Computing Systems: From Bits and Gates to C and Beyond. Second Edition. McGraw-Hill, 2004.This citation refers to page 7.
[67] *Id.*
[68] *Id.*
[69] *Id*, p. 10
[70] *Id.*
[71] *Id*, p. 14
[72] "TI-83ASM Programming Frequently Asked Questions", available at http://education.ti.com/us/product/tech/83/features/asmfaq.html#1
[73] "Game Boy Line", available at http://en.wikipedia.org/wiki/Game_Boy
[74] June 27, 2005 AMD Brief, p. 5
[75] *Id.*
[76] *Id.*

of x86-compatible processors as a prerequisite to granting Intel the sales contract.[77] Intel, IBM, and AMD agreed to have AMD act as a second source to produce processors for IBM's PC.[78] IBM did quite well when it introduced the PC, and Intel rose to stardom as the producer of the most sophisticated piece of electronic equipment inside IBM's PC.

Over the next twenty years, AMD continued to produce x86 processors, although the relationship between Intel and AMD varied.[79] Through a series of protracted legal battles, Intel attempted to sever the connection between Intel and AMD; Intel felt it unfair to invest heavily in research and development of new processor designs, only to hand them to AMD to produce as a potentially competing second-source.[80] Today, the two are fully separate entities, each producing their own proprietary implementation of the x86 instruction set.[81] The processors made by the two companies are vastly different, but manage to retain software-level interoperability via their mutual, compatible implementation of x86 (it should be noted, however, that the two companies use different pin layouts and physical packaging for their processors – although the two are capable of running the same software, a technician cannot in general switch a PC from an Intel to an AMD CPU without considerable effort and expense). [82]

Competition between the two companies is fierce in both the processor and memory markets (although AMD's complaint concerns only the processor market). Intel's major products include the Pentium, Itanium, and Xeon processors.[83] In 2004, Intel produced 34.209 billion dollars of revenue for net income of 7.516 billion dollars after taxes.[84] Intel employs 85,000 people worldwide.[85] AMD is Intel's chief competitor and produces the Athlon, Opteron, and Sempron processors.[86] In 2004, AMD produced 5.001 billion dollars of revenue for net income of 91.6 million dollars after taxes.[87] AMD employs 15,900 people worldwide.[88]

In a related matter, the Japan Fair Trade Commission (JFTC) issued a statement in early March 2005 that "Intel is engaging in actions to keep CPUs made by competing companies from being used".[89] Intel's issued a later statement which explained that "Intel agreed to abide by recommendations from the JFTC on business practices to resolve the matter and get on with business." Intel claims their statement did not admit guilt, and it subsequently took issue with the JFTC's alleged facts and violation of law."[90]

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[77] *Id.*
[78] *Id.*
[79] *Id.*
[80] *Id.*
[81] *Id.*
[82] *Id.*
[83] Intel's "Microprocessor Quick Reference Guide", available in paper form free of charge from Intel or online at http://www.intel.com/pressroom/kits/quickreffam.htm
[84] Intel Corporation's 2004 Form 10-K, on file with the SEC
[85] *Id.*
[86] "Server, Desktop, Mobile, and Workstation Processors Available from AMD". http://www.amd.com/us-en/Processors/ProductInformation/0,,30_118,00.html
[87] Advanced Micro Devices Corporation's 2004 Form 10-K, on file with the SEC
[88] *Id.*
[89] Martyn Williams and Laura Rhode in PC World Magazine, Tuesday, March 8, 2005.
[90] "Intel Fires Back Broadside at AMD", http://www.vnunet.com/vnunet/news/2139054/intel-amd-competition-court?vnu_lt=vnu_art_related_articles

V. Nature of AMD's Complaint

At the end of its brief, AMD asked the court to "Find that Intel is wrongfully maintaining its monopoly in the x86 Microprocessor Market in violation of Section 2 of the Sherman Act and award AMD treble damages in an amount to be proven at trial, pursuant to Section 4 of the Clayton Act, 15 U.S.C. § 15(a)."[91] AMD also sought specific damages for Intel's interference with AMD's business relationships, and injunctive relief to restore competition to the x86 CPU market.[92]

To prevail in an action under the Sherman Act, AMD must demonstrate that Intel has violated the Sherman Act using the two part test explained in *Grinnell*.[93] Point 25 in AMD's brief explains that "According to published reports, over the past several years it [Intel] has consistently achieved more than a 90% market share as measured by revenue, while AMD's share has remained at approximately 9%...Intel has captured at least 80% of x86 microprocessor unit sales in seven of the last eight years."[94] Per *American Tobacco Co. v. Unites States*, 80% market share constitutes monopoly.[95] The 90% revenue figure also reveals a strong grip on the market, although the tests set forth in *United States v. du Pont Co.* and *United States v. Aluminum Co. of America* do not comment on the appropriateness of measuring market share by revenue versus of units shipped. In either case, it is hard to deny that Intel's 80% or more share of the x86 processor market is monopolistic in character. AMD's brief did not specify the sources of their market data, but the factual nature of AMD's monopoly claim combined with the well-settled tests for monopoly will be easy to confirm or deny after a thorough discovery process.

The second point of the *Grinnell* test states that illegal behavior must encompass "the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[96] The lengthiest portion of AMD's brief attempted to prove that Intel has illegally maintained their monopoly through anticompetitive trade practices. AMD cited a bedazzling number of anecdotes where Intel used financial coercion to force original equipment manufacturers (OEMs, an industry term for parties who manufacture and sell computers) to accept exclusive or near-exclusive deals with Intel.

The brief cited many examples of outright payments made to OEMs to accept exclusivity agreements. "Toshiba received a very substantial payment from Intel in 2001 not to use AMD processors. Toshiba thereupon dropped AMD. Its executives agreed that Intel's financial inducements amounted to 'cocaine', but said they were hooked because reengaging with AMD would jeopardize Intel market development funds estimated to be worth $25-30 million per quarter".[97] Another example: "AMD also enjoyed early success with NEC, capturing nearly 40% of its microprocessor purchases for notebooks and desktops in the first quarter of 2002. In May

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[91] June 27, 2005 AMD Brief, p. 47
[92] *Id.*
[93] *Black*, p. 696
[94] *Id*, p. 10
[95] *American Tobacco Co. v. Unites States*, 328 U.S. 781, 797
[96] *United States v. Grinnell Corp. Et. Al.*, 384 U.S. 563
[97] June 27, 2005 AMD Brief, p. 16

2002, Intel agreed to pay NEC more than three billion yen per quarter in exchange for caps on NEC's purchases from AMD."[98]

AMD's brief also alleged Intel's use of retroactive first-dollar rebates.[99] Intel frequently worked with OEMs of all sizes to determine sales budgets for the upcoming period, and offer retroactive financial incentives to OEMs if and only if the OEM purchased a particular quota of processors from Intel during a specified time period.[100] OEMs sell computers at razor-thin profit margins, and obtaining Intel's rebate checks often became a matter of survival.[101] Intel's rebates did not take effect at the time of purchase, bur rather were retroactive in nature – meeting the desired quota would entitle the purchaser to rebates on all products purchased, to as far back as the first purchase.[102] The brief explains that retroactive rebates are quite distinct from standard volume discounts; whereas volume discounts take place at the time of purchase, Intel's retroactive rebates consisted of cash paid after the OEM met their quota.[103]

VI. Analysis and Conclusion

AMD's brief established a sufficient prima facie case to warrant a finding of illegal conduct under Section 2 of the Sherman Act. The *Grinnell* test requires AMD to show that Intel has monopoly control of the relevant market, which AMD maintains is the x86 CPU market. AMD met this burden via their demonstration that Intel controlled over 80% of the volume of processors shipped, and earned over 90% of the revenue for the relevant period (2004).[104] AMD cited numerous examples of kickbacks, rebates, and financial coercion which AMD insisted serves no purpose other than to lock AMD out of the market for x86 processors.

The result of *AMD v. Intel* rests heavily on the factual issues. While the brief presented a solid prima facie case, AMD will require strong evidence presented in court to prove the claims stated in the brief. Given the nature of Intel's continued alleged economic coercion, executives and decision-makers from the affected companies might be hesitant to step forward with testimony detrimental to Intel's position in the marketplace for fear of retaliation. In either case, out of court settlement does not appear likely because the only remedy AMD would be likely to accept would require Court enforcement, and would significant alter the way Intel allegedly does business in the x86 CPU marketplace.

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[98] *Id.*
[99] *Id*, p. 22
[100] *Id.*
[101] *Id.*
[102] *Id.*
[103] *Id.*
[104] *Id.*

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