
Microsoft: A Case Study in International Competitiveness, High Technology, and the Future of Antitrust Law

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Introduction

When the Antitrust Division of the Department of Justice (Antitrust Division) and the European Commission settled with Microsoft in July 1994, it should have been with a sigh of relief that the case did not have to go to trial. The Clinton administration had pursued the case to emphasize its determination to make the information superhighway a reality by opening up markets and sparking innovation. However, it was really in the government's best interest to settle, because the current antitrust laws are inadequate to regulate the emerging high technology industries in the global economy.

Microsoft had been under fire from its domestic and European competitors,[\(note 1\)](#) legislators, and the federal government since 1990 for its alleged unfair trade practices[\(note 2\)](#) and possible violations of the Sherman Act[\(note 3\)](#) and the Clayton Act.[\(note 4\)](#) Competitors alleged that Microsoft offered discounts to personal computer (PC) makers who agreed to pay a license fee for the use of Microsoft's Disk Operating System (MS-DOS) based on the total number of PCs they sold, rather than on the number of copies of the program they made. Competitors also accused Microsoft of introducing features into some programs that link those programs only to other Microsoft products, and that the company gave its own applications program developers information about MS-DOS changes before informing its competitors.[\(note 5\)](#) Rather than going to trial, the Antitrust Division settled the case on July 15, 1994.[\(note 6\)](#)

The policy issues surrounding the Microsoft case raise serious questions about the future of antitrust law. International competitiveness policy, high technology industry analysis, the decline of the computer industry, and the emergence of the information superhighway should have driven the settlement agreement with Microsoft, not the failure of antitrust law to cope with the new problems presented by Microsoft. While the Antitrust Division might have had the right idea in actively enforcing antitrust laws to keep markets open, this settlement indicates that perhaps vigorous enforcement is not always the answer. Microsoft, in fact, can and should play a leading role in getting the White House's vision of the information superhighway realized; it could not have been expected to do so if faced with large fines or the threat of divestiture growing out of an antitrust action.

This Note will discuss the allegations against Microsoft and the lawsuit that the Antitrust Division could have brought against Microsoft if the antitrust laws had kept up with technology. This Note will also evaluate the competing policy issues that could guide the Antitrust Division in formulating new policy to use in evaluating allegations against firms like Microsoft. The Division will have to choose between the differing viewpoints about antitrust laws regulating competition in order to protect the United States's international standing.

Regardless of international concerns, enforcing antitrust laws in the new high technology economy will become

increasingly difficult, and the Antitrust Division needs to reevaluate traditional measures of market power to better serve U.S. industry as a whole. This difficulty in enforcement has surfaced in the Microsoft case and will continue as the computer industry merges into the communications industry on the Information Superhighway. Finally, this Note will suggest and evaluate some possible changes to the Antitrust Division's enforcement policy.

I. The Antitrust Division's Investigation of Microsoft

A. Microsoft's Current Standing

Most computer experts agree that Microsoft sets the desktop standard for operating systems (OS).[\(note 7\)](#) When IBM introduced the revolutionary PC and needed an operating system to translate the applications software language into computer-recognizable electric impulses, Bill Gates, Microsoft's chairman and chief executive, took the initiative. He bought an existing operating system from another company and licensed it to IBM and then to other PC clones.[\(note 8\)](#) Currently, 80 percent of the PCs in the world use MS-DOS or Windows,[\(note 9\)](#) a DOS-based operating system that presents users with a screen of pictorial instructions, rather than DOS codes, as their operating system.[\(note 10\)](#) Because of Windows and MS-DOS's dominance, every PC applications software developer in the industry must create software that is Windows-compatible. Additionally, Microsoft is creating Windows-based applications of its own. Microsoft has more word processing software sales than WordPerfect Corp., equals Lotus Development Corp. for spreadsheet sales, and is rapidly gaining on Borland International, Inc. in database sales.[\(note 11\)](#)

For the past several years, Microsoft has been attacked by competitors, politicians, and recently, the federal government, but so far has come out relatively unscathed. Microsoft competitors, such as Novell Corp., WordPerfect Corp., and Borland International, Inc., have been unsuccessful in competing against Microsoft and fear for their future.[\(note 12\)](#) Senators Orrin Hatch (R-Utah) and Howard Metzenbaum (D-Ohio) joined Microsoft's competitors to push the government to investigate and take action against Microsoft for unfair trade practices.[\(note 13\)](#) Since 1990, the Federal Trade Commission (FTC) has investigated allegations against Microsoft, but has deadlocked in two separate votes on whether to take action.[\(note 14\)](#) Senator Metzenbaum urged FTC Chairwoman Janet Steiger to hand the investigation over to the Department of Justice, saying, "Anticompetitive practices that eliminate competition unfairly sap the vitality from that industry and, ultimately, our economy."[\(note 15\)](#) The Antitrust Division, headed by Anne K. Bingaman, took over the investigation in August 1993 and settled the case in July 1994.[\(note 16\)](#)

B. Allegations Against Microsoft The Antitrust Division did not investigate Microsoft because of its large market share, as some analysts suggest. Instead, the Division sought to determine whether Microsoft had used its monopoly power in the operating system market to stifle competition and innovation.[\(note 17\)](#) Ultimately, the Division charged that Microsoft had indeed used its monopoly power to exclude competitors and to monopolize related markets through leveraging.[\(note 18\)](#)

1. The Monopolization Charge

The root of the government's potential case against Microsoft was the claim by competitors that Microsoft used predatory licensing practices by basing their license fee discounts on the number of PCs sold.[\(note 19\)](#) This prevented PC makers from offering customers alternatives in operating systems. While Microsoft's licensing practices resulted in decreased costs to computer makers and decreased prices to consumers, such a practice effectively shut out other operating system competitors. For example, Novell Corp. makes one of the only operating system alternatives, DR-DOS. However, no original equipment manufacturer in the United States offers DR-DOS, even though the Novell operating system has received good reviews and has 5 percent of the market outside the United States.[\(note 20\)](#) The long-term result of this licensing practice is decreased innovation in the operating system market and possible increased prices.

2. The Leveraging Claims

Additionally, the Antitrust Division investigated allegations that Microsoft used its market dominance in operating

systems to attempt to monopolize other markets, such as applications software and utilities.[\(note 21\)](#) The majority of new PCs today do not use DOS as a stand-alone operating system. Instead, most run Windows on top of an underlying DOS. Thus, it is very important to the market success of any DOS product that it be able to run Windows (and its newer versions) smoothly. Users have found that error messages appear in Microsoft's Windows when another OS that is not MS-DOS is used.[\(note 22\)](#) That incompatibility discourages companies from buying products from OS competitors when they already use Windows. Indeed, customers faced with such error messages cannot get technical support from Microsoft. Moreover, many believe that product warranties may become invalid if competing software is used with Microsoft products.[\(note 23\)](#)

In the applications market, Lotus, WordPerfect, and Borland alleged that Microsoft used its control over operating system information to better integrate complementary products, placing applications rivals at a significant competitive disadvantage.[\(note 24\)](#) Though Microsoft does give out product information to other applications developers, it gives its own developers a more complete version of that information first.

C. The Microsoft Settlement

The settlement between the federal government, the European Commission, and Microsoft came amid a series of abortive negotiations.[\(note 25\)](#) The settlement concentrated on Microsoft's exclusionary licensing practices and ignored the leveraging claims.[\(note 26\)](#) The settlement stipulates that: (1) PC makers who have contracts with Microsoft do not have to pay royalties to Microsoft when they ship hardware with another operating system; (2) Microsoft cannot require PC makers to pay royalties for a minimum number of copies; (3) Microsoft will sign only one-year contracts with PC makers, instead of two- and five-year contracts; and (4) Microsoft will not force software developers to sign restrictive nondisclosure agreements when it circulates test copies of its software.[\(note 27\)](#)

Many of Microsoft's competitors feel that this decree was a "hollow victory" for the government, because it had no effect on pricing to consumers or revenues for Microsoft.[\(note 28\)](#) The only short-term winner may be Novell (Microsoft's direct competitor in operating systems), which will benefit by getting their DR-DOS on the market. However, any benefit for Novell and any consent decree provisions which address the operating system market will be a moot point in the next year when Microsoft introduces its major DOS and Windows upgrade, code-named "Chicago."[\(note 29\)](#) One commentator stated that because "there really isn't an alternative to Windows," most consumers presumably will buy Chicago.[\(note 30\)](#) Since those who buy Chicago will automatically get MS-DOS in the package and will not need DR-DOS, it seems that Novell will once again be shut out of the operating systems market. The question remains: Should the Antitrust Division punish Microsoft in this situation because it is producing a better product than everyone else?

The answer may be "No" in this instance, but the answer might have been different had the Antitrust Division definitely been able to show that Microsoft gained market share with anticompetitive intent. Antitrust Division head Anne Bingaman must have feared that she could not so easily prove such a case as she stated, "We brought the case that was there to bring."[\(note 31\)](#) That statement is not an enthusiastic endorsement of the settlement, but a realistic one. The federal government uses antitrust law to protect consumers and prevent market monopolization. On the other hand, the government also aims to enable companies to grow strong enough to compete effectively in international markets. The Microsoft case, involving both of these conflicting goals, presented a dilemma. Some say that to address both problems, the Antitrust Division should strictly enforce the antitrust laws. While that initially might sound promising, the Microsoft settlement suggests that strict enforcement was not possible because the antitrust laws were not suited to evaluating the emerging new markets.

II. The Potential Antitrust Action

A. The Monopolization Case

If the Antitrust Division had gone to trial, it likely would have asserted monopoly charges against Microsoft for its licensing practices under Section 2 of the Sherman Act, which prohibits monopolists from acquiring or maintaining

power by blatantly illegal or anticompetitive acts.[\(note 32\)](#) Many commentators, including Microsoft officials, have complained that once U.S. companies become successful, the Antitrust Division will take away that success.[\(note 33\)](#) Historically, companies have achieved success by growing large, often to the detriment of smaller companies. Although monopoly power is feared both because of its consequences and its potential for abuse,[\(note 34\)](#) big does not always mean bad.

The Supreme Court has held that the antitrust laws do not prohibit the mere operation of monopoly businesses.[\(note 35\)](#) However, such companies cannot unduly or improperly exercise their monopoly power, and that power must, as an additional limitation, result from the natural growth of the company.[\(note 36\)](#) For instance, the Court has held that a Section 2 violation involves "the willful acquisition or maintenance of [monopoly] power as distinguished from growth or development as a consequence of a superior product, business acumen, or historical accident."[\(note 37\)](#) In a 1979 case, the Court of Appeals for the Second Circuit noted that certain conduct is illegal when practiced by a monopolist "because it tends to destroy competition, although in the hands of a smaller market participant it might be considered harmless, or even 'honestly industrial.'" [\(note 38\)](#) Therefore, monopolists are held to a stringent standard of conduct whereby monopoly power combined with willful conduct violates Section 2.[\(note 39\)](#)

The willful conduct standard requires proof of intent to monopolize: "[C]onsideration of intent may play an important role in divining the actual nature and effect of the alleged anticompetitive conduct."[\(note 40\)](#) The Supreme Court is less suspicious of internal growth than of growth through merger[\(note 41\)](#) because there is less of a chance that the intent behind internal growth is to reduce or suppress competition. The most recent antitrust cases focus less on intent and more on the effect of, and motivation behind, the monopolist's challenged acts. For a plaintiff to succeed on a Section 2 claim, the challenged conduct must impair the opportunities of rivals and "not further competition on the merits or [do] so in an unnecessarily restrictive way," or "exclude rivals on some basis other than efficiency."[\(note 42\)](#) To be illegal, such exclusive conduct must not be justifiable by any legitimate, pro-competitive business reason.[\(note 43\)](#) Assuming Microsoft has a monopoly in the operating system market, Microsoft could claim that its dominance was acquired lawfully through the foresight of Bill Gates in seeing the potential success of IBM's PC and in producing a superior operating system for that PC. If this claim was made, intent would once again become relevant, so that Microsoft's course of conduct would have to be analyzed as a whole.[\(note 44\)](#)

When a firm with monopoly power, such as Microsoft, enters into contractual arrangements with customers with the intent and effect of forcing those customers to purchase exclusively from the monopolist, courts might find that the firm violated antitrust laws. Exclusive dealing in this manner is not fair competition and is not justifiable from an efficiency standpoint. Therefore, the Antitrust Division might have had a strong claim against Microsoft under the Sherman Act for anticompetitive exclusive dealing in regard to their licensing practices.

B. The Leveraging Case Necessary to Support the Monopolization

1. Tying Charges

Another option for the Antitrust Division would have been to broaden the charges against Microsoft to include tying allegations. Tying arrangements contracts in which the sale of one product is conditioned upon the sale of a second are subject to rigorous scrutiny under Sections 1 and 2 of the Sherman Act and Section 3 of the Clayton Act.[\(note 45\)](#) This practice results in

forcing the buyer into taking an unwanted product, the foreclosure of competitors of the seller from the tied product market, the extension of market power from the tying product market to the tied product market[,] . . . the reduction of consumer alternatives for purchasing particular goods, the increase of barriers to entry into both the tied and tying product markets, and the use of hidden price discrimination in pricing the ties or the tying product.[\(note 46\)](#)

Thus, a firm violates the antitrust laws if: (a) the firm has conditioned the purchase of one product on the sale of another, (b) a substantial volume of commerce is foreclosed, (c) the firm has sufficient market power in the tying market to force purchases in the tied market, and (d) the products involved are really two separate products.[\(note 47\)](#)

The tying charges would have addressed the allegations that Windows can only be run on MS-DOS. Microsoft's

competitors essentially allege that the company uses its dominance to obtain a monopoly in the applications software market. Because most PC consumers use Windows, they are forced to buy software that is compatible with it, which is usually also marketed by Microsoft.

2. Refusal to Deal and Essential Facility

The government might also have asserted a "refusal to deal" and an "essential facility" claim against Microsoft. These charges would have addressed the allegations that Microsoft gave its own applications software developers information about forthcoming Windows or MS-DOS changes before it gave the information to other developers.

The Supreme Court has established that the monopolist has no duty to cooperate with others and that in the vast majority of cases, a monopolist may "deal with whom he pleases."[\(note 48\)](#) Nevertheless, "[t]he absence of an unqualified duty to cooperate does not mean that every time a firm declines to participate in a particular cooperative venture, that decision may not have evidentiary significance or that it may not give rise to liability in certain circumstances."[\(note 49\)](#) Thus, in some circumstances, a monopolist's refusal to deal with a party seeking business ties may constitute, or be evidence of, illegal monopolization.

The "essential facilities" approach under Section 2 of the Sherman Act finds a violation when a monopolist refuses to provide a competitor with reasonable, non-discriminatory access to some "facility" that is essential to effective competition.[\(note 50\)](#) The facility essential to competitors in the Microsoft case is the MS-DOS or Windows technology information. While this might seem like a worthwhile charge to bring, Microsoft can assert a legitimate business justification: the desire to reap the benefits from its technological innovation and research and development investment.[\(note 51\)](#) This defensive response by Microsoft would likely defeat the "essential facilities" charge.

C. Problems with the Case Against Microsoft

Antitrust Division head Anne Bingaman stated after the settlement that, in order to win, "you have to have the law and facts" on your side.[\(note 52\)](#) The fact that the parties reached a settlement indicated that one or the other was missing in the Microsoft case. Because the factual allegations were so widespread, the deficiency in the federal government's case against Microsoft must have been applicable law.

First, the antitrust laws allow a monopolist to defend its actions through economic justifications.[\(note 53\)](#) For example, Microsoft could have claimed that it should be able to take advantage of its technological innovations without providing the specifications of MS-DOS or Windows to competitors. This defense is easy for Microsoft to assert, but difficult for the government to disprove.

Furthermore, proof of monopolization hinges on market share which, in turn, hinges on market definition. The government likely had trouble identifying Microsoft's market share in software applications markets. In order to identify a firm with monopoly power, the government investigates excess profits made by the firm, monopoly conduct, and the overall market structure.[\(note 54\)](#) In the Microsoft case, the government could find excess profits and some evidence of leveraging through the competitors' allegations. Establishing Microsoft's market share in the numerous software segments, however, created a weakness in the government's case.

Microsoft does have a substantial market share in operating systems, but to substantiate the monopolization case, the government would have to show that Microsoft had anticompetitive intent proven through instances of leveraging or refusing to deal. Furthermore, to substantiate the leveraging claims, the government would need evidence of high market shares in the software markets. However, market definition of Microsoft's markets is problematic. Therefore, in order to show high market share in software, the Antitrust Division would have had to define the markets narrowly, potentially leading to an inaccurate picture as to the market power that Microsoft wields.

III. Globalization and the Technological Revolution The Inadequacy of Antitrust Law

As world markets open to American products and the domestic economy merges with a global one, the role of domestic antitrust policy becomes clouded.[\(note 55\)](#) The United States leads the world in technology, especially in the fields of microprocessors, supercomputers, software, and telecommunications, because of vigorous competition and innovation in U.S. markets.[\(note 56\)](#) President Clinton recognized that "America's economic performance and international influence rest in large part on its technology base."[\(note 57\)](#) He favored an activist approach in his campaign platform wherein the government would promote the development of industrial technology.[\(note 58\)](#)

Many think Microsoft is the model for such international competitiveness because it sets the industry standard in the operating system market worldwide.[\(note 59\)](#) Additionally, Microsoft sparked domestic innovation by inspiring the creation of 500 companies in the United States to write software for Microsoft's Windows and currently involving 16,000 companies in creating more compatible software.[\(note 60\)](#) However, others maintain that Microsoft both dominates certain markets and shuts out some domestic competitors.[\(note 61\)](#)

A. The Transformation of the Computer Industry High technology industries are driven today by small, innovative companies. Although Microsoft appears to be as large as IBM once was, it is not. Companies that are succeeding in the new economy e.g., Microsoft, Novell, and Intel have done so by moving horizontally, rather than vertically.[\(note 62\)](#) Vertically-integrated giants (like IBM) that produced every component of their product in the early days of computing are not successful today in the high technology marketplaces. Microsoft has succeeded because it is structured like a small company, employing many different product developers instead of a huge managerial hierarchy. Thus, it is able to sell low-cost, high-profit PC hardware and software through the fast-growing distribution network, rather than through the monolithic internal infrastructures of the old days.[\(note 63\)](#) This change is due to the nature of the computer industry where innovation, rather than efficiency, drives production.[\(note 64\)](#)

Since the computer industry is fusing with other technologies, companies like Microsoft are able to spread out from core businesses to follow the innovation trends. Presently, Microsoft has captured nearly 40 percent of the \$8 billion PC software industry[\(note 65\)](#) and 80 percent of the operating system market share.[\(note 66\)](#) In 1992, Microsoft had less than 50 percent of its sales in applications software and, a year later, software comprised over an estimated 60 percent of its annual sales.[\(note 67\)](#) Applications software will take most of Microsoft's resources for research, development, and marketing, as price wars begin to heat up.[\(note 68\)](#) Nevertheless, the applications market appears to be saturated because three-fourths of applications sales are upgrades of existing products.[\(note 69\)](#)

The desktop standard market is only growing at a 5 percent annual rate[\(note 70\)](#) and, presumably, Microsoft's growth rate has declined as a result. Where the company used to double every two years, it now grows at only a 20 to 25 percent annual rate[\(note 71\)](#) and expects slower growth in PC sales during the last half of 1994 and the first half of 1995.[\(note 72\)](#) In order to find profits and escape the saturated software market, Microsoft is exploring new markets, while avoiding the vertical integration that has plagued IBM.[\(note 73\)](#)

According to many analysts, the computer market will change drastically as computer and communications technologies merge. The merger between cable and telephone companies points "the way to the convergence of the \$20-billion (annual revenue) cable industry with the \$80-billion telephone industry and the \$150-billion computer industry."[\(note 74\)](#) Following this trend or perhaps forecasting it, Microsoft has begun to move resources to form joint ventures to produce communications equipment. As the growth rates in operating systems and the existing applications software markets slowly decline due to innovations in other areas, Microsoft is diversifying into areas such as networks and the emerging Information Superhighway—a seamless web of communications networks, computers, databases, and consumer electronics that will put vast amounts of information at users' fingertips."[\(note 75\)](#) Microsoft is not limited to any one market segment, and its market share cannot be easily evaluated for any one product because it is always moving ahead to new products as old markets decline. Currently, antitrust policy does not fit this type of growth and should change to better fit the characteristics of these changing industries.

B. Antitrust Policy and the International Economy

Members of the Clinton administration believe that vigorous antitrust enforcement is essential to sparking innovation and strengthening companies that can compete effectively at home and abroad. Vice President Gore has said, "U.S.

preeminence in computers, telecommunications and biotech is a direct result of active government intervention."[\(note 76\)](#) Enforcement of antitrust policy theoretically stimulates competition, expands innovation, and thus, would keep the United States as the world leader in computer technology.

Ernest H. Preeg, trade expert at the Center for International & Strategic Studies and a former U.S. ambassador, agrees with Anne Bingaman that "[a] more forceful domestic strategy to stimulate continued technological innovation is clearly in order if the United States is to remain at the technological forefront over the longer term."[\(note 77\)](#) At a hearing before the Senate Judiciary Committee, Robert Pitofsky, a Georgetown University law professor, also recognized that antitrust law should become globalized, but asserted that the best way to do that was to "enforce the antitrust law more vigorously and as Congress intended."[\(note 78\)](#) Professor Pitofsky mitigates this position by adding that the government should recognize certain efficiency defenses so as to encourage more joint ventures, which lead to innovative research and development.[\(note 79\)](#)

Anne Bingaman hails from the Democratic school of antitrust enforcement, which uses government as a tool to protect consumers from unfair business practices.[\(note 80\)](#) Bingaman advocates vigorous antitrust enforcement, including strict merger review and a presumption of illegality on the side of business in antitrust violations.[\(note 81\)](#) According to Bingaman, this philosophy is not detrimental to international competition but, in fact, is essential: "It is precisely because the United States is faced with strong foreign rivals that we need vigorous antitrust enforcement . . ."[\(note 82\)](#) Many theorists support Bingaman, including George Washington University's antitrust expert, Thomas Morgan, who states that "[a] vigorous competitive marketplace at home is essential to the production of firms that are able to be effective in the global marketplace In that sense, strict enforcement is more important."[\(note 83\)](#) Strict enforcement may well be the best way to protect international competition, but as the Microsoft settlement shows, strict enforcement of current antitrust laws will not work in the new computer industry and the high technology information superhighway industries.

C. High Technology Industries and Market Analysis

Concern about antitrust policy and international competitiveness is compounded by the transformation of the global economy through the information and technological revolution. Many experts think that this high technology international economy demands a new kind of antitrust analysis.[\(note 84\)](#) High technology markets do not fit into the traditional antitrust law's relevant market definition and market-power measurements.

Antitrust law measures monopoly power by narrowly defining the relevant market and then determining the monopolist's share of that market. In high technology industries, one innovative product can make up an entire market. However, the small producer does not truly control a substantial share of the industry, because another innovator can easily displace the first with a new product. Consequently, innovation, rather than market share, determines market power. Thus, market power becomes harder to measure under traditional antitrust law analysis. Important technological improvements can catapult a small firm to the top of the market for a short time. That firm's market share potential may never be realized, however, because the next innovation may be more powerful, allowing a new company to take over the market.[\(note 85\)](#)

Microsoft has successful staying power even within this market structure because it constantly moves to new markets while profits are fresh, leaving the old markets behind. Usually, new information markets are dominated by a single firm with an innovative product. One innovation, such as Windows, creates opportunities for more new products that are designed to work with the first product. As more applications are developed for new software or hardware, the firm's market expands quickly. However, this means that the old leader's market power collapses just as rapidly. As a result, the traditional measure of market power does not fully take into account the dynamics of the computer industry.[\(note 86\)](#)

Robert Shapiro, a former Clinton economic advisor, also notes the problems of antitrust enforcement in the high technology industries of the new economy: "In global competition, a firm's capacity to innovate is fast becoming more important than its ability to cut costs by being more efficient."[\(note 87\)](#) In an industry such as computers, small firms flourish in such an industry because "a firm with an innovative product or process can overtake the industry leader without matching its scale."[\(note 88\)](#) Shapiro adds that in such an industry, the number of competitors is not a good

measure of a firm's standing because innovative products create their own markets with one firm dominating for a short time. However, the barriers to entry into the market are slight because innovation is based on "human resources that no firm can monopolize." [\(note 89\)](#)

Since the government is concerned with establishing technological superiority in a global market, Microsoft is essential to the functioning of the computer industry at present. Shapiro further stated: "Curbing the leader in one segment of this well-functioning industry at the behest of the leader's lagging rivals, would, in effect, subsidize firms that have not competed as successfully and so weaken all players' economic incentives for innovation." [\(note 90\)](#)

Because of the nature of the industry, the Antitrust Division should be careful not to overstate firms' power in the markets in question. This is not to say that strict enforcement has not been good for competition in the past; however, the new economy is very different and requires a new antitrust analysis. "[T]he increasing role of computer technology in previously distinct businesses such as consumer electronics, telecommunication, publishing, entertainment, and education is blurring the boundaries of the computer industry. That blurring makes market definition in the computer industry increasingly problematical." [\(note 91\)](#)

Strict enforcement of the antitrust laws can work to promote competition, but they should be tempered by policy considerations that look at the broader economy to see where strict enforcement is best suited. The policy behind the information superhighway suggests that Microsoft was not a likely candidate for strict enforcement. The information superhighway and Microsoft's place on it are becoming a reality. With the advent of integrated communications industries and the complicated structure that accompanies this trend, the Antitrust Division should reevaluate its competition policy. More importantly, the Division should consider long-term global communications development in its analysis. The United States's future in the global economy depends on technology innovation; that future lies in the information distribution market where communications is "becoming an entirely new medium." [\(note 92\)](#)

IV. Microsoft's Place on the Information Superhighway

A. U.S. Regulatory Policy and the National Information Infrastructure

The information market requires the collapse of industry boundaries as computer, telecommunications, and cable companies join together to provide the information infrastructure that includes "wireless voice and data phones; cellular and personal communications systems (PCS); connected notebook computers and personal digital assistants (PDAs); conferencing phones using voice, data, and video; and server farms with video quality information integrated into intelligent broadband networks." [\(note 93\)](#) As Vice President Gore noted, the "new marketplace will no longer be divided along current sectoral lines Everyone will be in the bit business. The functions provided will define the marketplace." [\(note 94\)](#) Computer companies such as Microsoft provide the software to link these technologies.

The federal government cannot afford to subsidize this burgeoning industry. [\(note 95\)](#) It will be up to private investment to lay the foundation for the superhighway. However, the Clinton administration recognizes that the government needs to serve as catalyst and coordinator of the entire effort. [\(note 96\)](#) Government involvement will help the U.S. gain a stronger foothold in the global market: "[B]y taking the lead in quickly employing these new information technologies, America's businesses will gain enormous advantages in the worldwide marketplace." [\(note 97\)](#) In order to accelerate the development of the technology and to ensure access to the highway for the rich and the poor alike, the administration must remove some of the immense legal and regulatory barriers so private investment can increase.

In order to provide a conducive environment for development, the Clinton administration has been slowly unveiling its National Information Infrastructure (NII) initiative, where "the marketplace must offer opportunity and the ability to compete" and the government establishes protocols, standards, and regulatory policies while letting the private sector do the rest. [\(note 98\)](#) The NII includes various legislative proposals, such as the National Information Infrastructure Act of 1993 (popularly called the Boucher Bill), and the High Performance Computing and Communications (HPCC) Program, which are designed to "spur the development of the applications" and "advanced computing and communications technologies" that will be available over the superhighway. [\(note 99\)](#)

By encouraging competition, the government hopes to increase investment.[\(note 100\)](#) However, the existing regulatory structures may not adequately foster the kind of competition the communications industry needs to spur the growth of the information superhighway. Vice President Gore outlined the problem of market definition in these new high technology industries. "Even if the lines between industries and markets were clear in the past, technological and market changes are now blurring them beyond recognition, if not erasing them entirely. Regulatory policies predicated on such perceived distinctions can harm consumers by impeding competition and discouraging private investment in networks and services."[\(note 101\)](#) Thus, the administration is seeking "gradual deregulation . . . as it clears the path for a future 'information superhighway' . . ."[\(note 102\)](#)

With the advent of new regulatory schemes for the industries involved in the information superhighway, the Antitrust Division needs to reformulate antitrust enforcement guidelines so that the guidelines both protect high technology industries through strict enforcement and encourage private investment. Companies with large amounts of capital, such as Microsoft, must be persuaded to provide the funding for the superhighway. Therefore, the government cannot afford to support or enact regulations that attack such pivotal companies. The government will have a challenge in determining which markets have to be watched closely and which need to be left alone. However, the companies contributing to the information superhighway most likely will be the innovative companies like Microsoft; these companies can move quickly into emerging markets and will not linger in any one market long enough to monopolize it.

B. Microsoft's New Markets

> The future world economy is based on networks and communications technology. The fast-moving companies that can capitalize on these developments will succeed in laying the highway framework and escape government scrutiny. In keeping with the trend, Microsoft has introduced an office software system that relies on Windows and connects computers, phones, copiers, fax machines, and printers into a digital web for convenient exchange of information.[\(note 103\)](#) To accomplish this, Microsoft has formed alliances with companies such as Hewlett-Packard, Compaq, and Northern Telecom.[\(note 104\)](#) Microsoft has recorded a 130 percent surge in sales of its office software system.[\(note 105\)](#)

The big news, however, is Microsoft's current research and development efforts (\$100 million a year) for the information superhighway.[\(note 106\)](#) Microsoft has recently boosted its expenditures 20 percent from the previous quarter and 36 percent from the fourth quarter in 1992 for research and development in interactive cable TV and personal communications systems.[\(note 107\)](#) Bill Gates wants to provide the links between cable and telephone technologies, which could potentially determine the face of interactive communications. Moreover, analysts predict that "[t]here will be a growing business for companies that can generate new information and programming for the system."[\(note 108\)](#)

Other joint ventures included a partnership with Compaq to design a product combining a notebook computer, fax, and phone with Windows software.[\(note 109\)](#) Additionally, Microsoft has a deal with Intel Corp. and General Instruments to produce cable TV converters to allow cable subscribers to use interactive multimedia services and software. Intel and Microsoft are joining up again to propose another product, which would integrate the user's PCS and telephone.[\(note 110\)](#) Bill Gates also has steered Microsoft into the CD-ROM market (a \$325 million market in 1993), which is expected to reach \$1 billion by the end of 1996.[\(note 111\)](#) Microsoft ranks fourth in this field with products including an interactive movie guide and a CD-ROM encyclopedia with video clips, still images, and sound; both are priced to appeal to consumers with average incomes.[\(note 112\)](#)

Microsoft also aims to capture the software market for information distribution. Although it has an advantage in its existing distribution network, Microsoft will not be able to dominate that market as easily as it did the operating system market.[\(note 113\)](#) In the information content business, as in books or records, "people want to buy a lot of different things from a lot of sources."[\(note 114\)](#) In this field, emerging industries will be very competitive. Because innovation will play a greater role than efficiencies, market leaders will come and go. Additionally, brand loyalty does not really exist in the information business as it does in the computer industry because information, not equipment, is the commodity.[\(note 115\)](#) Joint ventures are going to be the only way for companies to efficiently invest in research and development because of the reduced risk and cost for the parties involved. With so many strategic alliances, no one

player will easily dominate a particular market.

Microsoft has joined in private industry's efforts to work with the government to lay the foundation for the Superhighway. The "Cross-Industry Working Team" (XIWT), a cross section of the providers of NII technologies from several key information industries including AT&T, MCI, Bell Atlantic, TCI, and Apple, [\(note 116\)](#) is designed to develop common technological approaches to bridge research efforts from different industries, plan pilot projects, create a dialogue among participants from private and public sectors, and organize technology forums to discuss research results and disseminate information. [\(note 117\)](#)

Microsoft is a big player on the information superhighway because it has more capital to invest in research and development than most of the small companies making up the new computer market, and it is quick to move in on new investments. The government's best interests were served by leaving Microsoft alone at this time, but it is too early to say that another company following Microsoft's example will be so important that it should be shielded from strict enforcement. The Microsoft case illustrated that if the government had needed to stop Microsoft completely, it could not have done so under current antitrust law.

V. Policy Changes for Antitrust Law in High-Tech Industries

One commentator has argued that "the current restrictive approach to market definition leads to overenforcement because agencies fail to account for the full range of restraints on market power" when they are investigating high technology industries. [\(note 118\)](#) Therefore, a solution to high technology market anomalies could be to look at a broader market, perhaps the whole industry, in order to accurately consider the impact of competing and compatible products, and calculate market concentration considering the interaction of products in the industry. [\(note 119\)](#) Exploring a broader definition of the market at issue would also alleviate problems in determining market power based on market share. For example, an alleged monopolist may have 100 percent of the market share in a product market, but have very little power to cause an increase in that product's price in the entire industry. Measuring market power based on the market share of the broader relevant market might be a better indicator of the power of a particular firm to affect the communications industry as a whole.

Another possibility for regulating high technology industries such as the computer industry is to require companies to produce products that are compatible with all others. In high technology industries, compatibility is necessary for successful products. Because programs are licensed, firms cannot reverse engineer many products to make them compatible. MS-DOS and Windows are truly essential facilities for the software industry. Therefore, the Antitrust Division should require Microsoft to test its MS-DOS with all applications software and give applications software developers the information they need to make their applications compatible. [\(note 120\)](#) If all the systems and software were compatible, consumers could select which to use, and, presumably, the market would be competitive. While "[w]ithholding from others advance knowledge of one's new products . . . ordinarily constitutes valid competitive conduct," [\(note 121\)](#) in this case, that standard does not apply. When one company has a monopoly in an industry standard, like MS-DOS, the company must be forced to communicate more extensively with its applications software developers. [\(note 122\)](#) Requiring compatibility might alleviate these problems. This solution also suggests that a broader market definition is in order because it would take into account an entire system (operating systems and software), rather than one or the other.

Conclusion

Given the unique nature of the emerging multimedia industry and the unique role that Microsoft is playing within that industry, it was just and fortunate that the government had only partial success in its case against Microsoft. Unless Congress and the Antitrust Division reformulate the antitrust law to address the realities of the marketplace, it will be difficult to check unfair practices in the future. The government has a strong interest in deregulating the new information industries and must work to develop a competition policy that will allow for strict enforcement when it is needed and leniency where it is necessary.

Notes

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3. 15 U.S.C. 1-7 (1988). [Return to text](#)
4. 15 U.S.C. 12-27 (1988). [Return to text](#)
5. William Brandel, *Novell and Microsoft Back in the Ring*, LAN Times, Oct. 4, 1993, at 10; Wendy Goldman Rohm, *Microsoft Rivals Take Tales to Justice Officials*, Chi. Trib., Sept. 23, 1993, 3, at 3; Louise Keho, *The Antitrust Case that Won't Compute: A Look at FTC's Stalled Probe of Microsoft Practices*, Fin. Post, July 24, 1993, at 43; Brian Livingston, *Could Microsoft's Error Message Be Evidence of Foul Play?*, InfoWorld, Nov. 22, 1993, at 28; John Markoff, *Microsoft Alliances May Limit Probe Damage*, S.F. Chron., Aug. 23, 1993, at D2; *Microsoft Probe Could Last Years*, L.A. Times, Aug. 25, 1993, at D3; Sandra Sugawara, *Microsoft: Hot Rod or Road Hog?*, Wash. Post, Aug. 29, 1993, at H1; Jonathan Weber, *FTC Reported Deadlocked on Microsoft*, L.A. Times, July 22, 1993, at D1. [Return to text](#)
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8. *Id.* [Return to text](#)
9. Elizabeth Corcoran, *Microsoft Settles Case with Justice*, Wash. Post, July 17, 1994, at A1. [Return to text](#)
10. *Future*, *supra* note 7, at 25. Windows, strictly speaking, is not an operating system standing alone. When combined with MS-DOS, however, Windows essentially replaces MS-DOS from the user's perspective. [Return to text](#)
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12. *Id.* [Return to text](#)
13. See James Coates, *Microsoft Avoids FTC Charges, but Case Remains Open*, Chi. Trib., July 22, 1993, 3, at 1. [Return to text](#)
14. Warren Brown, *Microsoft to Undergo Justice Dept. Review*, Wash. Post, July 31, 1993, at B1. [Return to text](#)
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16. Corcoran, *supra* note 9, at A17. [Return to text](#)
17. Arthur L. Amolsch, *The Microsoft Investigations*, Wash. Post, Nov. 27, 1993, at A26. [Return to text](#)

18. *See generally* Brandel, *supra* note 5; Goldman Rohm, *supra* note 5; Keho, *supra* note 5; Livingston, *supra* note 5; Markoff, *supra* note 5; Sugawara, *supra* note 5; Weber, *supra* note 5. [Return to text](#)
19. *See generally* Brandel, *supra* note 5; Goldman Rohm, *supra* note 5; Keho, *supra* note 5; Livingston, *supra* note 5; Markoff, *supra* note 5; Sugawara, *supra* note 5; Weber, *supra* note 5. [Return to text](#)
20. Sugawara, *supra* note 5, at H5. [Return to text](#)
21. Corcoran, *supra* note 9, at A17. [Return to text](#)
22. Livingston, *supra* note 5, at 28. [Return to text](#)
23. *Id.* [Return to text](#)
24. Zachary, *supra* note 2, at A12. [Return to text](#)
25. Elizabeth Corcoran, *Microsoft Deal Came Down to a Phone Call*, Wash. Post, July 18, 1994, at A1. [Return to text](#)
26. Corcoran, *supra* note 9, at A17. [Return to text](#)
27. *Id.* [Return to text](#)
28. Zachary, *supra* note 2, at A1. [Return to text](#)
29. *Id.* at A12. Microsoft has recently planned to delay introduction of its DOS upgrade (now known as Windows95). IBM has now planned a competitive introduction of its own upgrade known as "Warp." James Coats, *IBM Hits Warp Speed With its New Operating Systems*, Chi. Trib., Oct. 16, 1994, at 5. [Return to text](#)
30. *Id.* [Return to text](#)
31. Viveca Novak, *Antitrust's Bingaman Talks Tough on Microsoft Case*, Wall St. J., July 17, 1994, at B1. [Return to text](#)
32. 15 U.S.C. 2 (1988). *See* Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 272 (2d Cir. 1979) ("The gravamen of a charge under sec. 1 of the Sherman Act is conduct in restraint of trade; no fundamental alteration of market structure is necessary. . . . Section 2, by contrast, is aimed primarily not at improper conduct but at a pernicious market structure in which the concentration of power saps the salubrious influence of competition."), *cert. denied*, 444 U.S. 1093 (1980). [Return to text](#)
33. Robert S. Stein, *Clinton's U-Turn on Antitrust: In Reversing Reagan, Will He Punish Success?*, Investor's Bus. Daily, Sept. 8, 1993, at 1. [Return to text](#)
34. *See* United States v. Aluminum Co. of Am., 148 F.2d 416, 428-29 (2d Cir. 1945). [Return to text](#)
35. *Id.* [Return to text](#)
36. United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 370 (1963). [Return to text](#)
37. United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966); *see* Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 274 (2d Cir. 1979), *cert. denied*, 444 U.S. 1093 (1980). [Return to text](#)
38. *Berkey Photo*, 603 F.2d at 275. [Return to text](#)
39. *Id.* at 274-76. [Return to text](#)

40. *United States v. United States Gypsum Co.*, 438 U.S. 422, 436 n.13 (1978); *see* *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 432 (2d Cir. 1945) ("In order to fall within 2, the monopolist must have both the power to monopolize and the intent to monopolize."). [Return to text](#)
41. *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 370 (1963). [Return to text](#)
42. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 605 (1985) (quoting 3 [Phillip Areeda & Donald F. Turner, *Antitrust Law* 626b](#) (1978) and [Robert Bork, *The Antitrust Paradox* 160](#) (1978)). [Return to text](#)
43. *Id.* [Return to text](#)
44. *See* *City of Anaheim v. Southern Cal. Edison Co.*, 955 F.2d 1373, 1376 (9th Cir. 1992) ("[I]t would not be proper to focus on specific individual acts of an accused monopolist while refusing to consider their overall combined effect."); *City of Mishawaka v. American Elec. Power Co.*, 616 F.2d 976, 986 (7th Cir. 1980) ("The [defendant] would have us consider each separate aspect of its conduct separately and in a vacuum . . . we might agree . . . that no one aspect standing alone is illegal. It is the mix of the various ingredients . . . in a monopoly broth that produces the unsavory flavor."). [Return to text](#)
45. Section 3 of the Clayton Act prohibits any person engaged in commerce to sell goods on the condition, agreement, or understanding that the purchaser shall not use or deal in the goods of a competitor where the effect of such a sale or contract may be to substantially lessen competition or tend to create a monopoly in any line of commerce. 15 U.S.C. 14 (1988). Tying arrangements also violate Section 1 of the Sherman Act, which prohibits contracts in restraint of trade. 15 U.S.C. 1 (1988). [Return to text](#)
46. [Louis B. Schwartz et al., *Antitrust* 697-98](#) (6th ed. 1983) (footnotes omitted). [Return to text](#)
47. *See, e.g.*, *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984); *see also* *Eastman Kodak Co. v. Image Tech'l Servs.*, 112 S. Ct. 2072 (1992). [Return to text](#)
48. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 603 (1985). [Return to text](#)
49. *Id.* at 601. [Return to text](#)
50. *MCI Comm. Corp. v. AT&T Co.*, 708 F.2d 1081, 1132-33 (7th Cir. 1982) ("[T]o establish liability under the essential facilities doctrine [a plaintiff must show]: (1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility."), *cert. denied*, 464 U.S. 891 (1983). [Return to text](#)
51. *See* *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263 (2d Cir. 1979), *cert. denied*, 444 U.S. 1093 (1980). [Return to text](#)
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55. *See* Louis A. Schapiro, *The Role of Intellectual Property Protection and International Competitiveness*, 58 [Antitrust L.J.](#) 569 (1989). [Return to text](#)
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58. *Id.* [Return to text](#)
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60. Sugawara, *supra* note 5, at H5; *see generally* Keho, *supra* note 5. [Return to text](#)
61. Sugawara, *supra* note 5, at H5. [Return to text](#)
62. Andy Grove, *How Intel Makes Spending Pay Off*, Fortune, Feb. 22, 1993, at 56, 56. [Return to text](#)
63. *Id.* at 57-58. [Return to text](#)
64. *See* Anthony L. Clapes, *Blinded by the Light: Antitrust Analysis of Computer Industry Alliances*, 61 Antitrust L.J. 899 (1993). [Return to text](#)
65. Thomas McCarroll, *Ending the Paper Chase*, Time, June 14, 1993, at 60, 65. [Return to text](#)
66. Corcoran, *supra* note 9, at 26. [Return to text](#)
67. *Future*, *supra* note 7, at 26. [Return to text](#)
68. *Id.* [Return to text](#)
69. G. Christian Hill, *Microsoft Discloses Stunning Growth to Analysts but Warns It Is at Risk*, Wall St. J., July 25, 1994, at B2; *see also* Markoff, *supra* note 5, at D2. [Return to text](#)
70. Barbara Darrow, *Bill Gates*, Computer Reseller News, Nov. 15, 1993, at 154. [Return to text](#)
71. Paul Andrews, *Microsoft's Boss Turns 38, Still Confounding Skeptics*, Ariz. Republic, Oct. 31, 1993, at H11. [Return to text](#)
72. Hill, *supra* note 69, at B2. [Return to text](#)
73. *Future*, *supra* note 7, at 26. [Return to text](#)
74. James Flanigan, *Bell Atlantic Finds Its Calling*, L.A. Times, Oct. 14, 1993, at D1. Although this particular deal fell through, the theory behind combining cable and telecommunications companies still applies. [Return to text](#)
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77. Ernest H. Preeg, *Who's Benefiting Whom? A Trade Agenda for High-Technology Industries*, Wash. Q., Autumn 1993, at 17, 25. [Return to text](#)
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81. Sandra Sugawara, *The 'Outsider' as Antitrust Chief; Probe of Microsoft Symbolizes Anne Bingaman's Activist Course*, Wash. Post, Aug. 29, 1993, at H1, H4. [Return to text](#)
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87. Robert J. Shapiro, *One World Under DOS?*, Wash. Post, Nov. 14, 1993, at C2. Robert Shapiro is vice president of the Progressive Policy Institute. He was a principal economic advisor to Clinton's 1992 presidential campaign. [Return to text](#)
88. *Id.* [Return to text](#)
89. *Id.* [Return to text](#)
90. *Id.* [Return to text](#)
91. Clapes, *supra* note 64, at 909. The current positions of AT&T and IBM offer a good comparison between the approaches of strict enforcement and laissez-faire. AT&T faced divestiture in the 1980s based on the results of a governmental investigation but still remains a formidable telecommunications company, especially with its recently approved merger with McCaw Cellular. See Mary Lu Carnevale, *AT&T, U.S. Sign Antitrust Pact to Let McCaw Purchase Proceed with Limits*, Wall St. J., July 18, 1994, at A4. Whereas, at the breakup, AT&T's total stock value was worth \$47.5 billion, today the total stock value from the eight spinoffs is \$180 billion. Jon Van, *A Personal Look into the Framework of IBM's Failures*, Chi. Trib., Sept. 12, 1993, 7, at 3 (reviewing Paul Carroll, *Big Blues: The Unmaking of IBM* (1993)). In contrast, IBM made it through an eight-year investigation without facing divestiture but is now facing serious decline anyway. IBM went from a company with \$34 billion in stock value in 1982 to only \$25 billion today. *Id.* Perhaps IBM could have done better if the government had split it up; IBM could have disposed of its unwieldy vertical infrastructure and restructured to become more competitive in today's innovative computer industry. It is interesting to note that in February 1993, IBM announced its intention to "eliminate layers of its vaunted direct sales infrastructure built during the computer giant's mainframe days," although it seems as if this move might be too little, too late. *The Year in Review: February, 1993*, Computer Reseller News, Nov. 15, 1993, at 353. [Return to text](#)
92. Paul Saffo, *Looking Ahead to the Next Decade*, Comm. Week, Jan. 3, 1994, at 52, 52. [Return to text](#)
93. John Sculley, Keynote Presentation at the Networked Economy Conference (Oct. 20, 1993), in 11 Multimedia & Videodisc Monitor, Nov. 1993. [Return to text](#)
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103. McCarroll, *supra* note 65, at 60. [Return to text](#)
104. *Id.* [Return to text](#)
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113. *Id.* [Return to text](#)
114. *Id.* [Return to text](#)
115. *Future*, *supra* note 7, at 27. [Return to text](#)
116. Heather Clancy, *Information Superhighway Moves Closer to Reality*, Computer Reseller News, Dec. 20, 1993, at 22. [Return to text](#)
117. *Id.* [Return to text](#)
118. Corcoran, *supra* note 25, at A1. [Return to text](#)
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120. *See generally* Scott McNealy, *Window(s) on Monopoly*, Wall St. J., July 27, 1994, at A10 (arguing that "U.S. antitrust law has failed to keep up with the pace of technology."). [Return to text](#)
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122. *See generally* Livingston, *supra* note 5, at 28. [Return to text](#)

