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RECENT ANTITRUST DEVELOPMENTS AND
A SELECTIVE ANTITRUST PERSPECTIVE
OF THE INFORMATION SUPERHIGHWAY

Stewart A. Pomerantz*

INTRODUCTION

Scarcely a day passes that we do not read about some new product
developed for travelers on the "information superhighway," some new
method of delivering the product, or some combination of entities be-
ing formed to manage the business opportunities associated with that
product. The information superhighway, as popularly conceived, will
produce more accessible means of conveying consumable product.
The increased access will create opportunities for the development of
new varieties of product itself, which in turn may prompt the develop-
ment of greater access. The resulting business environment allowing
new markets and profits will not fundamentally create novel antitrust
issues, but the boundaries of antitrust law will inform lawyers on man-
aging and establishing the opportunities that accompany the informa-
tion superhighway's development. While a complete exposition of the
relevant issues, the antitrust laws, and the interpretive case law would
fill volumes and cannot be fully discussed here, this section of the Re-
port will discuss selected major antitrust issues of recent interest as a
starting point for the practitioner unfamiliar with antitrust law. Part I
summarizes the Clinton Administration's continued attention to anti-
trust enforcement, including the issuance of new enforcement guide-
lines and the general concerns that Administration officials bring to
their review of market development and transactions related to the
information superhighway. Part I also reviews recent legislative
changes proposed for the telecommunications industry. Part II briefly
sets forth the framework of the principal antitrust statutes, the analyti-
cal approaches that have been developed by the courts in interpreting
these statutes, and the practical implications of the approaches for
practitioners. The final sections discuss some major issues raised by
recent transactions and other developments: essential facilities (part
III), horizontal and vertical mergers and innovation markets (part
IV), and intellectual property and technology licensing (part V).638

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District of Columbia, and Colorado bars.

638. This section of the Report necessarily oversimplifies antitrust law and the com-
plexity of the transactions and other commercial contexts in which antitrust issues
arise. There is a wealth of general and specialized treatises, law review articles, and
continuing legal education material available to the nonspecialized practitioner. For a
general overview of antitrust law, see ABA Antitrust Section, Antitrust Law Devel-
opments (3d ed. 1992) [hereinafter Antitrust Law Developments]; Phillip E. Areeda
Federal Antitrust Law (1980); William L. Litfand, State Antitrust Law (1994); Thomas
V. Vakerics, Antitrust Basics (1995); Julian O. von Kalinowski, Antitrust and Trade
I. THE CLINTON ADMINISTRATION AND RECENT LEGISLATIVE EFFORTS

The Clinton Administration continues to state publicly that antitrust enforcement will remain a priority. At the Spring 1994 Meeting of the American Bar Association, Assistant Attorney General Anne K. Bingaman noted that in the prior six months the Antitrust Division of the Department of Justice had commenced over fifty new civil conduct preliminary investigations. In over half these investigations, compulsory process was issued, compared to the annual average in prior years of four to eight investigations with compulsory process. On the merger front, in the prior six months the Division had intervened in fourteen merger transactions, and in thirteen of those instances the parties either abandoned the transaction or restructured it to address competition concerns. In prior years, there had been ten to twelve annual challenges. In 1993 the Division filed eighty-four criminal cases against seventy-one corporations and fifty-one individuals, with convictions resulting in over $41 million in fines, 3673 days of jail time, and 2704 days of non-jail confinement.

The Administration has not hesitated to underscore the importance of antitrust-related issues arising from the continual national debate on the information superhighway. New antitrust enforcement guidelines have recently been issued regarding the acquisition and licensing of intellectual property, indicating the Administration's attention to an area firmly intertwined in the ongoing technological advances in telecommunications and other industries. Enforcement attitudes, moreover, implicitly recognize that the information superhighway and other advanced technology industries develop in the context of a global market. New guidelines also were proposed to address international issues in the antitrust area, confirming a policy shift toward enforcing domestic antitrust laws against conduct abroad that thwarts
U.S. exports, and reiterating traditional antitrust jurisdiction over foreign conduct that affects domestic interstate or import commerce.  

The Administration recognizes, for example, that horizontal and vertical mergers in the telecommunications industry—fact-intensive transactions of great scope and far-reaching effect—involve basic issues that affect every consumer and therefore deserve close scrutiny. 644 While horizontal mergers have been the traditional focus of enforcement concern, vertical mergers raise issues of market foreclosure, the raising of rivals’ costs, the ease of coordination by horizontal competitors, and the chilling effect on innovation; thus, vertical mergers are also scrutinized. 645 Although the Administration recognizes that telephony, cable, and wireless technologies are converging, it cautions that the alternatives arising from this convergence “are largely prospective, they are not yet widely available and affordable, and it is not yet clear when they will be,” and that monopolies in these various industries will not necessarily erode quickly enough in the face of advancing technological change. 646

Underlying the scrutiny of mergers in the telecommunications and computer industries is the recognition that many of the firms in these industries, such as the regional Bell Companies and cable television firms, have a dominant or monopoly position. The concern in these cases is that the mergers may allow the extension of dominance in one market into a second market, particularly where a regulated monopoly is involved. 647 The enforcement agencies will attempt to obtain agreement from merging firms to accept appropriate conditions that will remove the anticompetitive effects of the transaction. 648

The Administration recognizes that the “information superhighway” is a misnomer: the popular phrase masks the development of multiple technological highways which will be acted on individually by market forces to emerge as individual winners or losers. 649 The Administration has stated its explicit preferences as to the development

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645. Bingaman, supra note 639, at 342.
646. Id.
648. Id. at 15-16.
649. This occurred, for example, in the recent AT&T-McCaw Cellular and the British Telecommunications-MCI acquisitions. See infra part IV.B.
650. Competition Policy, supra note 647, at 18-19.
of these multiple highways. First, the highway developer that currently has a regulated monopoly should not finance other highways at the expense of captive customers.\textsuperscript{651} Second, at least during the next several years, the Administration does not want the developer of a highway in any geographic area to acquire a competing highway in the same area.\textsuperscript{652} Third, where there are mergers or joint ventures between highway developers and content owners (producers of what gets transported on the highway), the Administration will look at any transaction to see if there is a risk that the integrated entity could unreasonably foreclose highway access to competing content owners, or content access to competing highways.\textsuperscript{653}

The Administration generally supported legislation introduced in the House and the Senate to change the competitive landscape of the telecommunications industry. The proposed legislation took several forms. For example, the Markey-Fields bill\textsuperscript{654} would have allowed telephone companies to provide cable programming in their service areas and sought to promote competition by current communications providers and new entrants by requiring them to provide open networks to competitors. The Brooks-Dingell bill\textsuperscript{655} would have modified the consent decree restrictions (known as the "Modified Final Judgment" or "MFJ") resulting from the divestiture of AT&T\textsuperscript{656} by allowing telephone companies to offer long distance service after demonstrating to the Department of Justice ("DOJ") and the FCC that their monopoly power could not be used to impede competition. It also allowed them to manufacture telecommunications equipment subject to certain safeguards. The Breaux-Packwood bill\textsuperscript{657} would have mandated the removal of entry barriers to the intrastate or interstate telecommunications markets and the provision by telephone companies of long distance services after such barriers were removed. Senator Robert Dole's initiative sought to go further toward complete deregulation by providing a faster transition that allowed immediate entry by telephone companies into all new markets without burdensome entry tests.

For political and other reasons, by the fall of 1994 these bills were not passed. Change at the legislative level, however, appears inevitable. In 1995, Senator Larry Pressler, Chairman of the Senate Commerce, Science and Transportation Committee, is expected to introduce the Telecommunications Competition and Deregulation Act

\textsuperscript{651} Id. at 19.
\textsuperscript{652} Id.
\textsuperscript{653} Id. at 20.
\textsuperscript{657} S. 2111, 103d Cong., 2d Sess. (1994).
of 1995, which will build on the failed legislative efforts and industry lobbying of 1994. Republican members of the Committee issued a broad policy statement outlining the legislation (the “Republican Proposal”). The Republican Proposal generally seeks to meet the needs of the “new global information economy” by allowing technology to follow or create new markets rather than allowing governmental micromanagement to limit telecommunications and information technology development.

Designed to foster competition in all telecommunications markets, the Republican Proposal recognizes the need to lift the restrictions imposed on the Bell Operating Companies by the MFJ. The Republican Proposal envisions a three-year transition period during which new rules would open up local telephone monopoly markets to competition. In the first year, the FCC and the states would adopt rules to remove barriers to entry, establish interconnection and opening requirements (i.e., opening networks to competitors), establish separate subsidiary safeguards (i.e., for all competitive activities of telecommunications providers), and establish a joint federal-state board to support universal service. Foreign ownership restrictions imposed by the Communications Act of 1934 would be reformed on a reciprocal basis. State and local barriers to entry then would be preempted, the MFJ restrictions on out-of-region long distance, manufacturing and incidental services would be lifted, the cable-telephone company cross ownership ban would be eliminated and cable rate regulation modified, and utilities would be allowed to enter telecommunications markets.

In the final phase, the FCC would be directed to change regulatory treatment of all telecommunications providers so as to treat providers of similar services in the same way. After interconnection and opening requirements are satisfied, federal and state regulators would establish price cap regulation. Biannual regulatory review would assess the need for all remaining regulations. In areas where competition does not occur, incentives for deployment of advanced telecommunications would be used. Changes to the shape of this legislation are being negotiated on a daily basis, but it will certainly


659. Policy Summary, supra note 658, at 68.


661. Policy Summary, supra note 658, at 68.

662. Id.

663. Id.

664. Id.
emerge as some form of compromise between the different 1994 proposals that failed to pass.665

II. STATUTES AND ANALYTICAL FRAMEWORK

Antitrust law is established by federal and state statutes and the case law interpreting them. In addition, the DOJ and the Federal Trade Commission ("FTC") apply guidelines tailored to particular types of circumstances; certain guidelines will be discussed in greater detail below.666 In recent years there has also been a greater effort by state attorneys general to focus on antitrust issues. The states have collectively issued their own enforcement guidelines as they have sought to coordinate enforcement efforts among themselves and with federal enforcement authorities.

The principal antitrust statutes are the Sherman Act,667 the Clayton Act,668 and the Federal Trade Commission Act.669 Section 1 of the Sherman Act prohibits contracts, combinations, or conspiracies "in restraint of trade."670 Joint action by two or more persons is required to meet the requirement of a contract, combination, or conspiracy.671 Although this section explicitly prohibits every contract in restraint of trade, the courts have consistently interpreted it to prohibit only unreasonable restraints of trade.672 Section 2 of the Sherman Act prohibits monopolization and attempts, combinations or conspiracies to monopolize.673 Unlike section 1, section 2 can be violated by both unilateral and joint action, and focuses exclusively on the monopolization offenses.674 The Sherman Act provides for criminal penalties and is enforced primarily by the Antitrust Division of the DOJ.675

The section of the Clayton Act most relevant to this discussion of the information superhighway is section 7. Section 7 prohibits acquisitions of stock or assets that tend to create a monopoly or substantially

666. See infra parts IV, V.
672. See, e.g., Standard Oil Co. v. United States, 221 U.S. 1, 61-63 (1911) (requiring a court to exercise its judgment in determining if a case presents an "undue" restraint of trade).
675. Id. at 545.
Other sections of the Clayton Act address price discrimination, exclusive dealing and tie-ins, and simultaneous service by persons acting as officers or directors of competing corporations. Government enforcement of the Clayton Act is shared by the DOJ and the FTC. The Clayton Act also empowers any person who has been injured by any antitrust violation to sue in federal court for treble damages, injunctive relief, and attorneys' fees. Private parties may thus sue for violations of both the Sherman and Clayton Acts. Often it is the threat of such potentially huge civil liability to private plaintiffs that deters questionable practices.

Section 5 of the Federal Trade Commission Act prohibits "[u]nfair methods of competition... and unfair or deceptive acts or practices in or affecting commerce." Section 5 was drafted broadly to allow the FTC to respond to the varied devised business practices which could constitute unfair methods of competition. Hence, the FTC may proscribe practices that do not violate the Sherman or Clayton Acts. The scope of section 5 is thus broader than that of the Sherman and Clayton Acts. Any conduct that violates either the Sherman or Clayton Act, however, will also violate section 5 of the Federal Trade Commission Act. The FTC has sole authority to enforce section 5, which confers no private cause of action.

The Robinson-Patman Act is the statute most frequently used to attack price discrimination. Although section 1 of the Sherman Act reaches price discrimination and covers products and services, the Robinson-Patman Act covers only the sale of goods, and not in-
With respect to information superhighway products, the statute therefore may or may not be relevant. While it may not apply to services, it could apply to the hardware aspects of the information superhighway, such as the sale of network equipment or computer terminals.

The complexity of the Robinson-Patman Act is well known. The key provisions of the Robinson-Patman Act are sections 2(a) through (f), which are amendments to the Clayton Act. Section 2 can therefore be enforced by private parties. Section 2(a) of the Act prohibits discrimination in pricing between different buyers of goods where the discrimination may "substantially . . . lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with customers of either of them." Section 2(f) imposes liability on a buyer where a seller has violated section 2(a).

The statute contains three defenses to price discrimination attack under section 2(a). The most commonly used defense, the "meeting competition defense," is set forth in section 2(b), and is available where the discrimination was used "in good faith to meet an equally low price of a competitor." The "cost justification" defense is found in section 2(a) itself, allowing price differentials based on "differences in the cost of manufacture, sale, or delivery resulting from the differing methods or quantities" in which the goods are sold or delivered to buyers. Finally, the "changing conditions" defense also set forth in section 2(a) allows for price changes in response to changing conditions in the market for (or the marketability of) the goods.

689. See, e.g., Ambook Enter. v. Time Inc., 612 F.2d 604, 609-10 (2d Cir. 1979) (holding that prohibition of price discrimination under the Robinson-Patman Act does not apply to the sale of newspaper advertisements), cert. dismissed, 448 U.S. 914 (1980).

690. Vakerics, supra note 638, § 8.01 and authorities cited therein.


694. Id. § 13(f). Other prohibitions under the Robinson-Patman Act include compensation payments "except for services rendered in connection with the sale or purchase of goods," id. § 13(c) (addressing practices like dummy brokerage payments); payments for services or facilities furnished by buyers in connection with the processing, handling or sales of goods, unless the payment is available "on proportionally equal terms to all other [competing] customers," id. § 13(d) (addressing practices like phony promotional allowances); and furnishing services or facilities to buyers of goods for resale "upon terms not accorded to all purchasers on proportionally equal terms." Id. § 13(e) (addressing promotional services and facilities).

695. Id. § 13(b).

696. Id. § 13(a).

697. Id. The changing conditions to which the defense might apply may include, for example, situations in which perishable goods deteriorate, seasonal goods become obsolete, or goods are sold in distress sales or sales in discontinuance of the business. Id.
The FTC shares enforcement authority with the DOJ under the Robinson-Patman Act. While the two agencies, to a great extent, share concurrent jurisdiction in enforcing the antitrust laws, they will normally attempt to avoid duplication of effort in any particular instance. The agencies have therefore adopted a clearance procedure requiring each agency to notify the other before opening a formal investigation. Because only the DOJ may conduct criminal prosecutions, all matters involving criminal conduct are referred to that agency. Robinson-Patman matters are, as a matter of practice, referred to the FTC.

While the majority of antitrust enforcement occurs at the federal level, and while private plaintiffs generally assert claims under the federal statutes, state authorities have increased their enforcement efforts since the 1970s. Various enforcement possibilities at the state level must be considered by practitioners. State attorneys general have sued under sections 4 and 16 of the Clayton Act for damages and injunctive relief as private "persons." Treble damage suits have sought recovery where the state has been a purchaser of products and services, often to recover overcharges resulting from price fixing conspiracies. Second, Title III of the Hart-Scott-Rodino Antitrust Improvements Act of 1976 conferred parens patriae authority so that state attorneys general could sue for treble damages for injuries to natural persons residing in the state. Third, the Multistate Antitrust Task Force of the National Association of Attorneys General ("NAAG") coordinates multistate investigations and litigation and

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699. See Vakerics, supra note 638, § 2.01.
700. Id.; Antitrust Law Developments, supra note 638, at 547.
701. Antitrust Law Developments, supra note 638, at 547.
702. Id.
703. Lifland, supra note 638, § 1.04.
705. See, e.g., Georgia v. Pennsylvania R.R., 324 U.S. 439, 447 (1945) (holding that a state can sue in a non-proprietary capacity for antitrust violations).
706. See, e.g., New York v. Hendrickson Bros., 840 F.2d 1065, 1079-80 (2d Cir.) (holding that state may recover overcharges under § 4 of the Clayton Act where the state has suffered injury due to price fixing), cert. denied, 488 U.S. 848 (1988).
708. 15 U.S.C. § 15c(a)(1). Such actions may only be brought for violations of the Sherman Act, however. Id. Other limitations also apply to such suits. See Antitrust Law Developments, supra note 638, at 607.
Fourth, NAAG has adopted enforcement guidelines that reflect NAAG’s and its members’ enforcement policies. The NAAG Vertical Restraint Guidelines, adopted in 1985 and revised in 1995, address resale price maintenance and nonprice vertical restraints. The NAAG Horizontal Merger Guidelines were adopted in 1987 and revised in 1993. The state attorneys general, the DOJ, and the FTC also coordinate overlapping state and federal enforcement efforts by sharing resources and information to avoid duplication.

The practitioner must also consider the various state antitrust statutes. Almost every state has a statute of general application to undue restrictions of competition. Approximately thirty of these statutes contain language tracking that of the Sherman Act, and many are much more specific than the Sherman Act itself. Many track language of the Clayton Act. State laws have also been enacted with language paralleling section 5 of the Federal Trade Commission Act. Thus, if a practice or transaction involves the commerce of multiple states, several state statutes may be implicated and several state enforcement agencies may express interest in the matter.

Within this statutory framework, the practitioner must understand the basic analytical approaches that have developed in the antitrust field. Under section 1 of the Sherman Act, the inquiry into the unreasonableness of any particular restraint of trade is determined by its effect on competition. This determination traditionally has turned on a distinction between two analytical approaches to challenged conduct. In the approach known as the per se rule, conduct that has been traditionally thought to be the most obviously pernicious—that is, always or almost always anticompetitive—has been held illegal under a

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710. 60 Minutes With the Honorable Michael F. Brockmeyer, Chief, Antitrust Division, Office of Attorney General, Maryland, 59 Antitrust L.J. 25, 31 (1990) [hereinafter Brockmeyer].


713. Antitrust Law Developments, supra note 638, at 618; Brockmeyer, supra note 710, at 32.

714. Lifland, supra note 638, § 1.02.

715. Id.

716. Id.

717. Id.

718. See, e.g., Business Elecs. Corp. v. Sharp Elecs. Corp., 485 U.S. 717, 731 (1988) (holding that economic consequences, rather than particular agreements, must be considered to determine unreasonable restraint of trade); National Soc’y of Professional Eng’rs v. United States, 435 U.S. 679, 692 (1978) (“[T]he purpose of the analysis is to form a judgment about the competitive significance of the restraint; it is not to decide whether a policy favoring competition is in the public interest . . . .”).
The practical import of the per se approach is that once the pernicious conduct or practice is identified, its illegality follows as a matter of law without any in-depth analysis of justifications for the conduct or of the economic characteristics of the relevant market. Accordingly, per se condemnation is reserved for restraints with which courts have considerable experience and whose effects are well known. The per se rule has generally been applied to price fixing by competitors, market allocations among competitors, certain concerted refusals to deal, resale price maintenance, and certain tying arrangements. The per se category of conduct hence includes essentially all arrangements between competitors that restrain competition and certain price arrangements between non-competitors.


723. See, e.g., Palmer v. BRG of Ga., Inc., 498 U.S. 46, 49-50 (1990) (per curiam) (holding that per se rule applies to potential as well as actual competitors); Topco Assocs., 405 U.S. at 606 (1972) (holding that per se rule applies to any scheme dividing up a market, even if it benefits only a specific level of the market).

724. See, e.g., Federal Trade Comm'n v. Superior Court Trial Lawyers Ass'n, 493 U.S. 411, 432 (1990) (holding that per se rule may be applicable to lawyers' concerted refusal to represent indigent clients without increased compensation); Federal Trade Comm'n v. Indiana Fed'n of Dentists, 476 U.S. 447, 465-66 (1986) (holding that per se rule may be applicable to dentists' concerted refusal to submit x-rays to dental insurers for use in benefits determinations); Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co., 472 U.S. 284, 295 n.6 (1985) (stating that a “concerted refusal to deal . . . might justify a per se invalidation”). Concerted refusals to deal are also known as group boycotts.

725. See Albrecht v. Herald Co., 390 U.S. 145, 153 (1968) (holding that maintaining a specified resale price was a per se illegal restraint of trade); Dr. Miles Medical Co. v. John D. Park & Sons Co., 220 U.S. 373 (1911) (finding that minimum prices were a restraint of trade); see also Business Elecs. Corp. v. Sharp Elecs. Corp., 485 U.S. 717, 720, 724 (1988) (discussing previous cases in which per se rule has applied to resale price maintenance). Resale price maintenance is price fixing between persons at different levels of the market structure, such as manufacturers and distributors, regarding the resale price of products or services. See Antitrust Law Developments, supra note 638, at 100.

726. See Eastman Kodak Co. v. Image Technical Servs., 504 U.S. 451, 483 (1992); Jefferson Parish Hosp. Dist. v. Hyde, 466 U.S. 2, 13-14 (1984); Fortner Enters. v. United States Steel Corp., 394 U.S. 495, 498-99 (1969). In a tying arrangement a party sells a product (the tying product), but only on condition that the buyer also buys a second (tied) product or agrees not to buy the tied product from another supplier. Northern Pac. Ry. v. United States, 356 U.S. 1, 5-6. The Court in Jefferson Parish, however, noted that tying arrangements not meeting the per se liability criteria are analyzed under the rule of reason. Jefferson Parish, 466 U.S. at 17-18. The rule of reason is discussed below, infra notes 727-31 and accompanying text.
The other analytical approach is known as the rule of reason and is considered the general rule of antitrust analysis. The Supreme Court held early on that section 1 of the Sherman Act prohibits only undue restraints of trade. Under this approach, all practices other than those in the per se category (which are presumed to be unreasonable) are examined under the rule of reason to determine whether the challenged practice is "reasonable." The application of the rule of reason is actually a process in which the courts go beyond the initial identification of the practice (or "restraint" in Sherman Act parlance) to delve into its economic or other justifications and the detailed characteristics of the relevant market in which that practice is used. In so doing, courts consider the facts peculiar to the industry involved, the industry's condition before and after the restraint was imposed, the nature of the restraint and its actual or probable effect, and the restraint's history, perceived evil, and purpose.

In reviewing these factors, courts attempt to weigh the procompetitive effects of the practice against its perceived harms to competition. If the former outweighs the latter, the practice is considered reasonable and will not result in liability; if there are few procompetitive effects of the restraint, it will likely be condemned as "unreasonable." The rule of reason approach is generally applied to nonprice vertical restraints (i.e., between parties who are not in a competitive relationship with each other, such as a supplier and customer). Because the analytical consequences of the per se-rule of reason distinction are potentially so drastically different, enforcement agencies and private litigants have traditionally invested great effort in characterizing a practice so as to fall within or without each approach.

Another traditional characterization issue related to the per se-rule of reason distinction is the structural nature of the restraint being challenged. Restraints exerted by market participants who compete with each other or function at the same distribution level of the market (such as two manufacturers, two wholesalers, etc.), or which affect competition at that level of the market, are called "horizontal" restraints. For example, agreements by manufacturers to limit output or to fix prices are horizontal restraints. Horizontal restraints are traditionally perceived as the most harmful to competition and are subjected to the per se rule of illegality.

In contrast, restraints employed by market participants at more than one distribution level of the market (such as a manufacturer and

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727. Standard Oil v. United States, 221 U.S. 1, 59-60 (1911).
728. Board of Trade of Chicago v. United States, 246 U.S. 231, 238 (1918).
732. Vakerics, supra note 638, § 1.03[2].
its retail dealers, or a supplier and its customer) or which affect the relationship between the participants at the different distribution levels are called "vertical" restraints and rarely trigger per se analysis. Examples of vertical restraints are territorial and customer restrictions imposed on dealers by manufacturers, exclusive distributorships, exclusive dealing, and other restrictions designed to market sellers' goods in a manageable or efficient manner.

Commentators and courts have recognized that there may be difficulties in differentiating vertical from horizontal restraints. The Supreme Court has suggested that the characterization depends on the relationship between the parties rather than on the purpose or effect of the restraint. Any situation involving parties in a vertical relationship, however, may still involve a horizontal restraint if there are multiple conspirators at the same distribution level.

The treatment of horizontal restraints as more harmful than vertical restraints is related to the fact that the antitrust laws are primarily concerned with interbrand competition. Interbrand competition is competition between products made by different manufacturers or between services rendered by different service providers (IBM computer software and Microsoft software, for example). Intrabrand competition is competition between two dealers of the same manufacturer's product (stores selling IBM software). Vertical restrictions limit intrabrand competition in the manufacturer's goods so that the manufacturer can achieve efficiencies in its distribution, thus promoting interbrand competition between the manufacturer's goods and those of other manufacturers. If there are numerous competing brands in the marketplace, then no single manufacturer can exert significant market power over price, and a vertical restraint imposed by a single manufacturer on its dealers will be unlikely to do great competitive

733. See Continental T.V., 433 U.S. at 57 (refusing to extend the per se rule to vertical restrictions of territory in retail franchising arrangements).

734. Id. at 58 n.28; Antitrust Law Developments, supra note 638, at 60 & n.324.

735. Business Elecs. Corp. v. Sharp Elecs. Corp., 485 U.S. 717, 730 & n.4 (1988) (rejecting terminated dealer's argument that restraint was horizontal; the Court stated, "The dissent apparently believes that whether a restraint is horizontal depends upon whether its anticompetitive effects are horizontal, and not upon whether it is the product of a horizontal agreement. That is of course a conceivable way of talking, but if it were the language of antitrust analysis there would be no such thing as an unlawful vertical restraint, since all anticompetitive effects are by definition horizontal effects." (citation omitted)).


738. See Vakerics, supra note 638, § 7.01.

739. Id.

harm. This is true because interbrand competition confronting the manufacturer can check the exploitation of intrabrand market power, as a result of consumers' ability to substitute a different brand of the same product.\footnote{741} If vigorous interbrand competition is absent, on the other hand, the antitrust laws will be more concerned with the extent of competition between dealers of the same product. Thus, in situations involving vertical nonprice restrictions, for example, rule of reason analysis requires the factfinder to balance intrabrand and interbrand competitive effects to determine the restriction's net competitive impact.\footnote{742}

The horizontal-vertical and per se-rule of reason distinctions often afford antitrust practitioners considerable opportunity for creativity and argument. In any given market situation, a practice may have both horizontal and vertical characteristics or effects on competition. Practitioners involved in establishing multiparty distribution systems and the various types of strategic alliances designed to serve (or serve as) the information superhighway should bear this in mind. In recent years there has been a trend by the courts to apply per se analysis to fewer and fewer practices, or at least with greater and greater caution.\footnote{743} The courts have become more receptive to, and more sophisticated in addressing, economic theory and proof as applied to the factual scenarios presented to them. Accordingly, courts will likely examine the economic particularities of the situation at issue when the rule of reason applies.

A knowledge of the detailed economic effects of any particular restraint or transaction will therefore be crucial to resolving an information superhighway issue against antitrust standards. The competitive environment of many of the high technology industries related to the information superhighway is changing monthly, because of the proliferation of products and services and the joint ventures and other businesses organized to deliver them. The telecommunications and computer industries are the most obvious examples. The dynamic nature of information superhighway developments poses a challenge for any court, agency, or practitioner seeking to discern the competitive effects of challenged conduct.\footnote{744}

\footnote{741. \textit{Id.} at 52 n.19.}
\footnote{742. See \textit{id.} at 49-54, 57 n.27.}
\footnote{744. An unreasonable restraint under section 1 of the Sherman Act, as described above, may also be challenged as part of a monopolization charge under section 2 of the Sherman Act. See Vakerics, \textit{supra} note 386, § 5.05. The analytical inquiry in such cases involves a determination whether the defendant has monopoly power, the power to exclude competitors or control prices in a relevant market. United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956); see Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172, 177 (1965). This is generally deter-}
With this background in mind, the next parts of the Report will discuss some of the issues that may arise in thinking about the information superhighway and related current events.

III. ESSENTIAL FACILITIES

Many of the policy issues concerning the information superhighway involve how market players will establish and finance potentially complex and expansive technological infrastructures. Such infrastructures may involve networks or distribution systems costing immense sums invested over long periods. One doctrine that often arises under the monopolization offenses of section 2 of the Sherman Act is the monopolization theory known as the essential facilities doctrine.\(^7\)

The doctrine applies to a situation where a firm with an essential facility refuses to deal with another party by refusing that party access to the facility. Where a competitor needs a particular facility or resource to compete effectively with the firm controlling the facility or resource, the controlling firm has an obligation to provide competitors with reasonable access to the facility.\(^7\) The harm in refusing such access is the extension of a monopolist's monopoly power from one market to another, or from one stage of production to another.\(^7\) To prevail under the essential facilities doctrine, the competitor who is denied access must be unable practically or reasonably to duplicate the facility, and it must be feasible for the controlling firm to provide it access.\(^7\)

An essential facilities analysis is potentially extremely complex and uncertain, particularly in high technology network industries. The facility itself, its essential nature, and the market in which competition is allegedly hindered must be defined.\(^7\) Feasibility of facility duplication raises particular uncertainty, as courts must determine the amount of expense that an access-seeking competitor must invest in duplication before the firm controlling the facility will be required to


\(^7\)46. Id.

\(^7\)47. Id.


make it available.\textsuperscript{750} Even where access is provided to the facility, there can be considerable debate whether the terms and conditions of access are reasonable.\textsuperscript{751} In regulated industries, regulatory considerations related to this issue may further complicate the analysis and possibly impose inappropriate regulatory functions on courts.\textsuperscript{752} Particularly in industries where technological change is rapid, the character of the facility (for example, a tangible wire network or an intangible network database), the ways in which competitors may duplicate portions of the facility, and the access points to the facility may change frequently.\textsuperscript{753} Careful review of essential facilities allegations on a case-by-case basis will thus become more crucial as technological change occurs with greater frequency and becomes the rule rather than the exception.

Firms that control any of the types of "pipelines" or unique resources that are developed in constructing the information superhighway, then, must be vigilant in making their decisions about which competitors will be granted and denied access to these resources. The local exchange telephone networks controlled by the Regional Bell Operating Companies commonly have been thought of as essential facilities. The requirements of the essential facilities doctrine, however, could apply to many other types of industries and facilities, such as operators of electronic networks, owners or processors of information designed to be transmitted on such networks, and others. To the extent that the firms likely to establish such pipelines or resources at the beginning will have substantial financial resources, while other market players will likely not have such financial means, the pipelines or resources may not be reasonably duplicable by the other market players. Of course, one possible response to the risk imposed by the essential facilities doctrine on a dominant firm is to adopt a policy of reasonable and open access to the facility in question, in the expectation that open access will ultimately produce more profits than any monopoly profits arising from denial of access to the facility.

Another point to bear in mind is that for many people the image of the information superhighway is a single pipeline. While there may be few pipelines given that their construction will be expensive and complex, over time we should expect to see multiple pipelines and multiple types of pipelines. Where once telephone companies were a sole pipeline for telecommunications, today cable companies and electric utilities, firms able to build fiber optic networks, and operators of Personal Communications Services and other wireless systems are using converging technologies and technological advances to expand the

\textsuperscript{750} Id. at 4-5.
\textsuperscript{751} Id. at 5.
\textsuperscript{752} Id.
\textsuperscript{753} Id. at 6-7.
universe of available networks. Some may fail in the marketplace over time, and some may not be deployed equally throughout the country or the world, but to the extent that they increase in number, the "essential" nature of any initial or long-standing pipeline may diminish. At the same time, one type of network may have cost advantages that are so significant that the developing pipelines in the market cannot easily become practical substitutes for it.

IV. Mergers

This part will discuss agency and judicial treatment of basic horizontal and vertical mergers, including developments in recent transactions, and how the concern for innovation may inform merger counseling on the information superhighway.

A. Horizontal Mergers

On a daily basis, firms combine to offer new products and services in new ways, often through innovations in technology. Telecommunications and technology have been at the core of recent merger activity. How are the competitive effects of such combinations assessed? Section 7 of the Clayton Act prohibits acquisitions of stock or assets where the effect of the acquisition "may be substantially to lessen competition, or to tend to create a monopoly." This is a civil prohibition rather than a criminal one. Such actions are brought by federal and state enforcement agencies and private plaintiffs to enjoin the closing of the transaction, or to undo closed transactions through orders of rescission and divestiture. Mergers can also be challenged under sections 1 and 2 of the Sherman Act and section 5 of the Federal Trade Commission Act. The principal focus of merger analysis under the antitrust laws is the horizontal transaction, which occurs between two direct competitors in the same market. Mergers of direct competitors reduce the number of competitors in the market by one, and thereby increases the market share of the merged entity.

In 1992, the DOJ and the FTC issued joint horizontal merger guidelines ("1992 Guidelines") to modify earlier agency guidelines and pro-

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754. Id. at 7.
758. Antitrust Law Developments, supra note 638, at 276.
759. See Vakerics, supra note 638, §§ 9.02, 9.04[1].
vide further guidance to the business community. The 1992 Guidelines are not binding, although they may influence the courts. A review of the 1992 Guidelines will help practitioners recognize which mergers will likely be challenged by federal enforcement agencies.

The first step in analyzing the effects of a proposed merger is to define the relevant market implicated by the transaction. The agencies assess whether the merger would significantly increase concentration and result in a concentrated market. The first aspect of defining the relevant market, in turn, is defining the product or service. The relevant market includes all products that are reasonably interchangeable with those of the merging companies. The agencies begin by narrowly defining the products sold by the merging firms. They then expand the product definition to include all other products that would become acceptable substitutes to buyers if prices for the products were increased by a "small but significant and non-transitory" amount. The reactions of buyers to the price increase are examined by assessing evidence that buyers shifted to other products or that sellers base their business decisions on the prospects that buyers may switch to other products. Substitutable products are added to the tentatively defined market until the agencies determine that for the expanded defined market a hypothetical monopolist over all the products could profitably impose a small but significant and nontransitory price increase.

Substitutability or interchangeability of products is of course dependent on the preferences of consumers. Advances in technology, and particularly the convergence of technologies that has sparked much of the popular discussion of the information superhighway, certainly affect such preferences because they add products and services to the array from which consumers already choose. Any discussion about the information superhighway is at least implicitly also a discussion about changes in a social phenomenon. Consumer preferences may change as consumer attitudes about technology and the uses to which it can be applied change. We have already witnessed such preference changes in daily life. Computers, software, electronic databases, and on-line electronic bulletin boards today are now readily accepted by

762. 1992 Guidelines, supra note 760, § 0.2.
763. Id. § 1.1.
764. Id. § 1.11.
765. Id.
766. Id.
767. Id.
millions for work and play. The definitional boundaries of the markets these products inhabit have changed with greater acceptance of their potential by consumers.

Having defined the product or service market, the enforcement agencies then use a similar method to define the geographic market implicated by the transaction.\textsuperscript{768} Starting with a geographic area that includes the locations of the merging firms, the market definition is expanded to include locations of other firms that would serve the merging firms' customers if the merging firms raised prices by a "small but significant and nontransitory" amount.\textsuperscript{769} When this process of expanding the definition of the geographic market reaches a point at which a hypothetical monopolist over all locations in the market can profitably impose such a price increase in the product, the geographic market is defined.\textsuperscript{770} The agencies consider evidence that buyers have shifted suppliers in response to price changes and evidence that sellers base their business decisions on the prospect of buyer substitution between geographic locations in response to price changes.\textsuperscript{771}

Next, the agencies identify the firms that participate in the relevant market. Included will be all firms that currently produce or sell in the relevant market, and, to the extent they are competitively significant, vertically integrated firms.\textsuperscript{772} Firms that do not currently produce or sell in the market will also be included if they are "uncommitted entrants"—that is, if in response to a price increase, they likely could enter the market by changing production within one year "without the expenditure of significant sunk costs of entry and exit."\textsuperscript{773}

After the market participants are identified, their market shares are calculated based on their total sales or capacity, usually measured on an annual basis.\textsuperscript{774} Market shares are then used to calculate the concentration of the market through the Herfindahl-Hirschman Index ("HHI") in order to assess whether the increase in concentration after the merger will be significant.\textsuperscript{775} The HHI is calculated by summing the squares of each market participant's market share, both before and after the merger.\textsuperscript{776} The agencies consider both the post-merger market concentration and the increase in concentration that the trans-

\textsuperscript{768} Id. § 1.2.
\textsuperscript{769} Id. § 1.21.
\textsuperscript{770} Id.
\textsuperscript{771} Id.
\textsuperscript{772} Id. § 1.31.
\textsuperscript{773} Id. § 1.32. The 1992 Guidelines define sunk costs as acquisition costs of tangible and intangible assets—such as market-specific investments in technologies, research and development, and regulatory approvals—that cannot be recovered by the deployment of those assets outside the relevant market. Id.
\textsuperscript{774} Id. § 1.41. A firm's sales or capacity is not included to the extent that it would not be available to respond to an increase in price in the market. Id. Market shares are calculated for foreign firms for their domestic sales. Id. § 1.43.
\textsuperscript{775} Id. § 1.5.
\textsuperscript{776} Id.
Where the post-merger HHI is 1000 or less, the market is deemed unconcentrated and the transaction will not likely be challenged. Where the post-merger HHI is 1000-1800, the market is deemed "moderately concentrated," and if the increase over the pre-merger HHI is 100 or greater, then an agency challenge is more likely. Finally, markets with post-merger HHIs above 1800 are regarded as highly concentrated. In such markets, if the HHI increase is 50 or more, agency challenge is much more likely, and where the increase is more than 100, the merger is presumed to enhance market power and probably will be challenged absent special circumstances.

After assessing market share and concentration, the agencies assess other market factors that pertain to the competitive effects of a merger. For example, post-merger firm and product homogeneity and the availability to firms of information about the market may make it easier for firms in the post-merger market to engage in collusion that could harm consumers. Such information can be used to detect and punish firms' deviations from collusive arrangements. There may also exist aspects of product differentiation, capacity, and other market conditions that would allow the merged entity to elevate price and suppress output unilaterally.

Another important market characteristic is the ease of entry into the post-merger market. The merger raises no antitrust concern where entry is sufficiently timely, likely, and of such magnitude that post-merger market firms could not, singly or collectively, profitably maintain a price increase above pre-merger levels.

The agencies will consider whether a new entrant can achieve a significant market impact within two years through any entry effort. Because entry that is sufficient to counteract the competitive concerns raised by the merger will cause prices to fall to pre-merger levels or lower, the agencies will look to see whether the entrant can attain

777. Id. § 1.51.
778. Id.
779. Id.
780. Id.
781. Id. The enforcement agencies will consider whether the shares are over or understated as a result of recent or ongoing changes in market conditions. Id. § 1.52. Where, for example, technology that is needed for competitive viability is not equally available to all firms in the market, then the shares of firms to which it is not available may be overstated. Id. § 1.521.
782. Id. §§ 2.1-2.12.
783. Id. §§ 2.2-2.22.
784. Id. § 3.0.
785. Id. § 3.2. The agencies consider all phases of the entry process, including planning and design, licensing, construction/operation of production facilities, promotion and marketing, distribution, and satisfaction of customer testing requirements. Id. § 3.1.
entry that is profitable at pre-merger price levels. The agencies will also consider whether mergers that might otherwise be challenged may be necessary to achieve certain efficiencies such as economies of scale, better integration of production facilities, lower transportation costs, and the like. Lastly, mergers involving failing companies that can show, among other requirements, that the failing firm's assets would exit the relevant market absent the acquisition, are unlikely to enhance market power and thus will not be challenged.

Over the years, the courts have also taken a more sophisticated economic approach to evaluating horizontal mergers. They have required that the definitions of both product and geographic markets be commercially realistic and economically significant. The Supreme Court's criteria for product definition have included the perception of the product market as a separate economic entity, the product's peculiar characteristics or uses, the sensitivity of the product to price changes in similar products, whether unique manufacturing facilities are required to make the product, whether users of the product are a distinct class of customers, and whether the product is sold through distinct distribution channels. These criteria are used in comparing the merging firms' products with other products that may compete with them. The products that are ultimately included in the market are those which are reasonably interchangeable with the merging

786. Id. §§ 3.0-3.4.
787. Id. § 4.
788. Id. §§ 5.0-5.1. Because of the increases in state merger enforcement in recent years, practitioners need also consider the horizontal merger guidelines issued by NAAG. NAAG Guidelines, supra note 712. Under the NAAG Guidelines the states generally evaluate mergers in the same way as the federal agencies do. Neal R. Stoll & Shepard Goldfein, State Merger Enforcement in the '90s, N.Y. L.J., Apr. 20, 1993, at 3. Relevant product and geographic markets are defined, and market concentration and changes in concentration are assessed before and after the proposed transaction. Id. To determine whether the merger is likely substantially to lessen competition, attorneys general examine the concentration data in light of the ease of entry, the history of anticompetitive behavior in the industry, the efficiencies the merger may produce, and the effect of powerful buyers in the market. Id.

Market definition, however, differs somewhat from the federal guidelines. The product market includes the common products of the merging firms and substitute products, but substitutes are included only if 75% of consumers find them "suitable." Id. This method could result in narrower product markets than under federal guidelines. The geographic market is defined as the locations from which 75% of consumers would obtain the product. Id. The NAAG Guidelines are less likely to include potential competitors as being in the relevant market. Another significant difference is that while the NAAG Guidelines employ the same HHI thresholds as the federal guidelines do, they use the thresholds to create presumptions of anticompetitive effects; the presumptions are much more difficult for merging firms to overcome than under the federal guidelines, partly because the NAAG Guidelines set forth fewer factors upon which the firms can rely in overcoming the presumptions. Id.

790. Id. at 325.
791. Id.
firms' products. Substitution flexibility by producers of other products is considered as well. The same criteria are applied to define the geographic market, which will include the area to which purchasers can practically turn for supplies.

After defining the market, the courts focus on market share and market concentration to determine the competitive impact of the merger. If the merging firms' market shares and market concentration are sufficiently high, a prima facie case of illegality under the Clayton Act will be established. The presumption of illegality may, however, be rebutted by evidence of other factors demonstrating that the market statistics do not accurately reflect the competitive conditions in the industry. Factors considered include barriers to entry, decreasing market shares of the merging firms, a history of mergers in the industry, trends toward increasing or decreasing concentration, the existence of excess capacity in the industry, the acquired firm's financial weakness, the rate of technological innovation in the industry and the technological capability of the acquired firm, and the role of the acquired firm as a particularly disruptive factor in the market.

B. Vertical Mergers

Vertical mergers are mergers between firms having a supplier-customer or other vertical relationship. The traditional antitrust concern with such mergers was that they could eliminate either a source of supply or a buyer that is critical to the competitive viability of the remaining firms in the market. Where a customer acquires a supplier, for example, other customers may be foreclosed from a supply source that is necessary for them to compete with the acquiring firm. The Supreme Court has articulated this foreclosure con-

792. Id.
793. Id. at 325 n.42.
794. Id. at 336; see Vakerics, supra note 638, § 9.05[1][c].
797. See Philadelphia Nat'l Bank, 374 U.S. at 363. In United States v. Von's Grocery Co., 384 U.S. 270 (1966), for example, the merger was held illegal where the combined market share of the merged firms was 7.5% in an industry with a trend toward increasing concentration. Id. at 272-73, 279.
800. Antitrust Law Developments, supra note 638, at 330.
801. See Vakerics, supra note 638, § 9.05[3].
cern, but lower courts have subsequently viewed vertical mergers with less suspicion.

The lower courts' skepticism of the traditional antitrust concern was reflected in a limited view of the possible anticompetitive effects of vertical mergers, as articulated in federal merger enforcement guidelines issued in 1984 (the "1984 Guidelines"). The 1984 Guidelines essentially focus on two harms in evaluating the two markets in which the two merging firms compete: the creation of barriers to entry and the potential facilitation of horizontal collusion.

A vertical merger may increase entry barriers when three necessary (but not sufficient) conditions exist. First, the vertical integration between the two markets must be so extensive that entrants to one market (the "primary market," where competition is being evaluated) would simultaneously have to enter the "second" or adjacent market. The second necessary condition occurs where the requirement of entry to the secondary market makes entry to the primary market "significantly more difficult and less likely to occur." Finally, the characteristics of the primary market must be "otherwise so conducive to noncompetitive performance that the increased difficulty of entry is likely to affect its performance."

The DOJ will ordinarily examine a broad range of criteria to determine whether these three conditions exist and whether barriers to entry are consequently created. The criteria include unintegrated capacity in the secondary market, the ease of entering the secondary market in absolute terms, the skills required of firms in the two markets, the recoverability of capital assets that may be specialized to the secondary market, and the concentration of the primary market.

As to the possibility that the vertical merger will facilitate horizontal collusion, the 1984 Guidelines note that vertical integration by up-

805. See Department of Justice Merger Guidelines (1984), reprinted in 4 Trade Reg. Rep. (CCH) § 13,103, at 20,551 § 4 (June 14, 1984) [hereinafter 1984 Guidelines]; see also Scott A. Stempel, Moving Beyond the '84 Guidelines: Government Shows Increasing Concern with Vertical Mergers, Antitrust, Fall 1994, at 17 (noting that the 1984 Guidelines "reflect[ ] a very narrow view of the circumstances in which the government should challenge vertical mergers"). Although the 1984 Guidelines were superseded by the 1992 Guidelines (discussed above with respect to horizontal mergers), the federal enforcement agencies still rely on the 1984 Guidelines with respect to vertical mergers.
807. Id.
808. Id.
809. Id. §§ 4.211-4.213.
stream firms into the associated retail market can facilitate collusion in the upstream market by making it easier for the firms to monitor retail prices.\textsuperscript{810} This is true because retail prices are generally more visible than prices in upstream markets. As vertical integration increases, the monitoring effect may become significant.\textsuperscript{811} The DOJ will thus challenge vertical mergers when the upstream market is concentrated at an HHI value above 1800 and a large percentage of upstream product will be sold through vertically integrated retail outlets after the merger.\textsuperscript{812}

The 1984 Guidelines also observe that a vertical merger that eliminates a "particularly disruptive buyer" in a downstream market may facilitate collusion in the upstream market.\textsuperscript{813} Where, for example, sales to a particular buyer are viewed by upstream firms as sufficiently important and the upstream firms collude, those firms may deviate from collusive agreements to obtain the sales from that buyer. A vertical merger of that buyer with an upstream firm, however, will eliminate the incentive to deviate from collusive efforts. Such a scenario would make it easier for upstream firms to collude.\textsuperscript{814} The DOJ will challenge a vertical merger on this basis when the upstream market is concentrated at an HHI value of 1800 or more and the disruptive buyer substantially differs from the other firms in its market in terms of volume of purchases or other relevant characteristics.\textsuperscript{815}

Because vertical mergers in recent years were largely viewed as efficient and procompetitive, until 1994 few were challenged under the 1984 Guidelines.\textsuperscript{816} In 1994, however, the DOJ challenged three notable vertical mergers in the telecommunications and cable industries, relying at least in part on theories not articulated by the 1984 Guidelines. Commentators have suggested that such efforts indicate a shift away from the view that vertical mergers are generally procompetitive.\textsuperscript{817}

The DOJ challenged AT&T's proposed purchase of McCaw Cellular Communications under section 7 of the Clayton Act, alleging that the purchase would lessen competition in the markets for cellular service, cellular infrastructure equipment, and long distance service to cellular subscribers.\textsuperscript{818} AT&T was alleged to be the dominant supplier of cellular infrastructure equipment in the country, a market where only two other competitors existed.\textsuperscript{819} Because buyers of cellu-

\textsuperscript{810} Id. § 4.221.
\textsuperscript{811} Id.
\textsuperscript{812} Id.
\textsuperscript{813} Id. § 4.222.
\textsuperscript{814} Id.
\textsuperscript{815} Id.
\textsuperscript{816} Stempel, supra note 805, at 18.
\textsuperscript{817} Id. at 18-21.
\textsuperscript{819} Id. (Competitive Impact Statement).
lar equipment practically get locked into their suppliers, AT&T had substantial market power over its installed base of customers. Because there was no effective competition in McCaw’s cellular markets and AT&T dominated long distance service to cellular subscribers, the markets at issue were highly concentrated.

The DOJ alleged that the merger could harm competition in three ways. First, AT&T’s market power in the equipment market would allow the merged firm to disadvantage the cellular equipment customers that competed with McCaw by raising their costs and limiting their capacity and service quality. Second, the merger would afford AT&T an unfair advantage over competitors in the long distance service market because McCaw could dictate to its customers the choice of long distance provider. The merged firm could offer customers bundled cellular and long distance service, foreclosing other long distance providers from access to those customers and potentially resulting in higher prices paid by those customers. Third, the DOJ feared that AT&T somehow could use proprietary information of its equipment competitors, if those competitors supplied equipment to McCaw and transmitted proprietary information to McCaw in the process.

The proposed consent decree imposed requirements on the firms to act as if they were not related. Under its terms, AT&T was forced to offer McCaw and its cellular service competitors similar terms for AT&T’s infrastructure equipment. The decree also required that AT&T help customers to change infrastructure suppliers. McCaw was required to provide equal access to long distance competitors of AT&T and to keep confidential from AT&T the proprietary information it received from other infrastructure equipment suppliers.

Similarly, the DOJ also challenged British Telecommunications’ (“British Telecom”) acquisition of twenty percent of MCI Communications. Alleging a violation of section 7 of the Clayton Act, the DOJ argued that British Telecom had an effective bottleneck monopoly over United Kingdom telecommunications services, was the dominant provider of domestic long distance services in the U.K., and had market power in the provision of international long distance services.

820. Id. at 44,168.
821. Id. at 44,168-69.
822. Id. at 44,166.
823. Id. at 44,168-69.
824. Id. at 44,168.
825. Id. at 44,164 (Proposed Final Judgment).
826. Id. at 44,164-65.
827. Id. at 44,162-63.
in the U.K. MCI was alleged to be the second largest United States provider of U.S.-U.K. international telecommunications services.

The harm threatened by the transaction was that British Telecom's investment in MCI gave it an incentive to use its market power in U.K. telecommunications services to favor MCI and disadvantage MCI's competitors that provided U.S.-U.K. telecommunications services. Because British Telecom could discriminate in favor of MCI with respect to prices, terms, and access to British Telecom's international services, MCI's competitors' offerings would be less attractive and their ability to compete would thereby suffer.

The DOJ was also concerned that MCI's competitors would be disadvantaged because British Telecom could provide MCI with advance information about changes to its network. An additional concern was the risk that British Telecom would receive proprietary information about MCI's competitors when it provided them with U.S.-U.K. services, and British Telecom could provide such information to MCI. MCI's access to such information thus posed an increased risk of collusion between MCI and its competitors.

The proposed consent decree therefore required British Telecom and MCI to disclose in the United States detailed information about the terms and conditions of British Telecom's services provided to MCI. It also banned British Telecom's disclosure to MCI of confidential information about MCI's competitors.

The DOJ also challenged the proposed cable industry merger of Tele-Communications, Inc. ("TCI") with Liberty Media Corporation. TCI was the largest cable system operator in the U.S. Liberty had been formed when TCI split off certain programming interests from its cable operations. The DOJ alleged that the merger of the separate companies would allow the merged firm to disfavor unaffiliated video programming providers with respect to access to the merged firm's cable systems in favor of its affiliated programming providers. The other anticipated competitive harm was that the merged entity could deny subscription television distributors access to its affiliated video programming services.

829. Id. at 33,016 (Competitive Impact Statement).
830. Id.
831. Id.
832. Id. at 33,016-17.
833. Id. at 33,017.
834. Id.
835. Id. at 33,011 (Proposed Final Judgment).
836. Id. at 33,012.
838. Id. at 24,725 (Competitive Impact Statement).
839. Id. at 24,726.
840. Id.
The proposed consent decree accordingly barred the merged entity from discriminating against unaffiliated video programming providers and against unaffiliated multichannel subscription television providers where such conduct would "unreasonably restrain competition." While the decree did not elaborate on the quoted standard, the Competitive Impact Statement noted that the decree was not intended to inhibit good faith negotiations between the merged entity and unaffiliated programmers regarding terms of carriage. As to the merged entity's affiliated programming, the Competitive Impact Statement stated that differences in prices or terms "that are reasonably based on ordinary commercial factors" will not constitute prohibited discrimination.

The enforcement efforts with respect to these transactions were not constrained by the terms of the 1984 Guidelines. The DOJ now appears to be focused on the ability of a vertically integrated firm to discriminate against customers or suppliers that compete with the firm in downstream or upstream markets. The ability of the vertically integrated firm to do so will depend on the firm's market power in its capacity as a supplier to or buyer from its competitors. The other emphasis in these cases is the integrated firm's ability to channel to its own business the competitively sensitive information of market players that compete with that business. Antitrust practitioners who are sensitive to such concerns can anticipate the scrutiny of the enforcement agencies and, when such scrutiny cannot be avoided, work toward consent decrees that satisfy enforcement concerns while allowing the scrutinized firms to achieve their strategic business goals.

C. Mergers and Innovation Markets

Competition in innovation is one recent merger issue that affects many of the industries related to the information superhighway. The DOJ and the FTC have recently taken the position that firms with certain research and development ("R&D") capabilities may be viewed as competitors in innovation markets that are separate from goods or technology markets. Under the 1995 Department of Justice-Federal Trade Commission Antitrust Guidelines for the Licensing

841. Id. at 24,724 (Proposed Final Judgment).
842. Id. at 24,727.
843. 1995 Intellectual Property Guidelines, supra note 643, § 3.2.3. The Guidelines note at the outset that "[t]he intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare." Id. § 1.0. Commentators have noted that the prominent inclusion of innovation concerns in the Guidelines indicates a distinct change from past enforcement policy that may be the most significant and lasting contribution of the Guidelines. See Robert E. Bloch et al., Innovation Policy and Antitrust Enforcement: The 1995 Antitrust Guidelines for the Licensing of Intellectual Property, Antitrust Rep., June 1995, at 10, 12; Peter Sullivan, FTC Joins DOJ in Issuing Intellectual Property Guidelines, Antitrust Rep., June 1995, at 7, 9.
of Intellectual Property ("1995 Intellectual Property Guidelines"), "An innovation market consists of the [R&D] directed to particular new or improved goods or processes, and the close substitutes for that [R&D]." If the capacity for R&D that will produce technology innovations can be associated with identifiable assets or attributes of specific firms, then such firms' conduct may affect competition in R&D among those firms.

The DOJ first expressed such concerns in two cases that challenged acquisitions. In United States v. General Motors Corp., the DOJ challenged the proposed acquisition of General Motors' Allison Transmission Division by ZF Friedrichshafen, a German transmission manufacturer. The DOJ alleged that GM and Friedrichshafen were the two largest manufacturers—accounting for over eighty percent of production—of medium and heavy automatic transmissions in the world, and together controlled most of the R&D resources used to develop improvements in heavy-duty automatic transmission technology.

Although the two firms competed directly in the relatively narrow segment of applications for heavy-duty transmissions (transit buses and refuse trucks), they competed for technological developments in automatic transmissions used in a broader range of applications beyond those vehicle types. The complaint alleged a violation of section 7 of the Clayton Act in the two narrow vehicle markets. It also alleged a violation in a separate innovation market described as the technological innovation for the design, development, and production of medium and heavy automatic transmissions for commercial and military vehicles. The DOJ alleged that in this innovation market the acquisition would reduce the number of competitors from three to two. The parties abandoned the transaction.

In United States v. Flow International Corp., Flow International sought to acquire its primary competitor, Ingersoll-Rand's Waterjet Cutting Systems Division. The competitors were the two major manufacturers of ultra-high pressure waterjet intensifier pumps and competed in the design, development, and improvement of pumps and related equipment. The acquisition allegedly violated section 7 in the domestic market for waterjet pumps. The complaint also alleged that

844. 1995 Intellectual Property Guidelines, supra note 643, § 3.2.3. The close substitutes are R&D efforts, technologies, and goods that significantly limit the market power attending the relevant R&D. Id.
845. Id.
846. 6 Trade Reg. Rep. (CCH) ¶ 45,093, at 44,660 (Nov. 16, 1993).
847. Id. at 44,661.
848. Id.
849. Id.
851. 6 Trade Reg. Rep. (CCH) ¶ 45,094, at 44,681 (Apr. 4, 1994).
the acquisition would eliminate competition in technological innovation between the two firms and that the loss of such competition would adversely affect consumers in the downstream waterjet pump market. The parties eventually abandoned the merger.

Under the 1995 Intellectual Property Guidelines, the agencies may seek to use the innovation market concept in two ways. The innovation market may be used to analyze the competitive effects of the arrangement in that market, as was done in General Motors. Secondly, it may be used as it was in Flow International, to aid the analysis of competitive effects in downstream technology or goods markets. The agencies may use the concept if the firms that have the ability to participate in innovation activities can be identified and are few in number. If the number of such firms is large, then the agencies will assume that the innovation market is competitive and that adverse effects on competition are unlikely. The competitive significance of innovation market participants will be assessed based on market share data. Shares of innovation markets may be calculated on the basis of shares of assets or characteristics on which innovation depends, shares of R&D expenditures, shares of a related product, or firms' capabilities and incentives to innovate.

Both General Motors and Flow International settled before the courts could review the innovation market concept. As the 1995 Intellectual Property Guidelines suggest, those cases signified only the beginning of the enforcement agencies' use of the innovation market concept in their enforcement efforts. There is debate among anti-
trust commentators about the appropriateness of viewing competition for innovation as a separate market. Proponents of the approach have argued that it will help detect evils that otherwise would remain undetected. This would occur, for example, in markets where the merging firms do not compete before the merger. Whereas current merger analysis has a relatively short-term focus of one to two years in examining the markets in which the merging firms compete, in high technology industries, current R&D will bring about changes in the composition and scope of future downstream product markets, and the use of the innovation market concept extends the benefits of antitrust analysis beyond such a short-term view. 861

At the same time, however, there are practical difficulties in defining innovation markets. R&D efforts are generally secret efforts. There may not be any practical way of identifying potential entrants into the market, even if we identify the firms currently pursuing the relevant type of innovation. Difficulties in collecting information would hinder any reliable calculation of market shares for participants in the market. Commentators have also noted that the focus on innovation and its possible effect on competition on future product markets implies that we value the "innovative diversity" that results from maintaining separate R&D efforts more than we value the efficiencies and synergies that might be gained from combining such efforts. While this may be the view of the enforcement agencies based on enforcement efforts like General Motors and Flow International, this view may assume too easily that we can predict the competitive effects of combined R&D efforts. Such assumptions may not be borne out in the realities of the marketplace.

V. INTELLECTUAL PROPERTY AND TECHNOLOGY LICENSING

The 1995 Intellectual Property Guidelines set forth a modified enforcement policy that applies to licensing of know-how and property protected by patent, copyright, and trade secret law. The Guidelines illustrate the policy with hypothetical examples and useful discussions of the agencies' approach to them.

The Guidelines embody three general principles. First, for antitrust purposes intellectual property should be analyzed comparably to other forms of property. Second, the agencies will not presume that a patent, copyright, or trade secret necessarily confers market power—the ability to raise prices above a competitive level for a significant period of time—on its owner. Third, licensing of intellectual property is generally procompetitive. It is procompetitive

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862. Denger, supra note 861, at 6.
863. Id.
864. Id.
866. The Guidelines do not set forth new rules for licensing arrangements constituting acquisitions of intellectual property, i.e., outright sales of all rights to the property or exclusive licenses that preclude the licensor and all other persons from using the property. Id. § 5.7. In such transactions the agencies will apply the merger analysis set forth in the agencies' 1992 Guidelines on horizontal mergers. Id.
867. In excluding application to trademarks, the 1995 Intellectual Property Guidelines distinguish trademarks as involving product differentiation issues rather than the technology transfer and innovation-related issues of the other regimes, but nevertheless state that the same general antitrust principles apply to trademarks. Id. § 1.0 n.1.
868. Id. §§ 2.3, 3.2.2, 3.2.3, 3.3, 3.4, 4.1.2, 5.1, 5.5, 5.7.
869. Id. §§ 2.0, 2.1.
870. Id. § 2.2; see also George A. Hay, Market Power in Antitrust, 60 Antitrust L.J. 807, 812-13 (1992) (defining market power).
872. Id. §§ 2.0, 2.3.
because it promotes efficiencies in firms' combination of inputs in the
development of new products.\textsuperscript{873} Licensing also affords licensors in-
centives to invest in intellectual property creation and R\&D, while it
affords licensees incentives to invest in commercialization and distrib-
bution of products containing the property.\textsuperscript{874}

The antitrust concern of the agencies will be whether the license
impedes competition among entities that would have been actual or
likely potential competitors in the absence of the license, or harms
competition in another market by foreclosing access to, or raising the
price of, an important input.\textsuperscript{875} Such competition may be impeded
notwithstanding the fact that the law gives intellectual property own-
ers the right not to transfer the property on any terms whatsoever.\textsuperscript{876}
The focus of the agencies will be on the arrangement's effect, not its
form.\textsuperscript{877}

The 1995 Intellectual Property Guidelines recognize that a licensing
arrangement may affect competition in a variety of markets. The rele-
vant markets to be evaluated potentially include the products made
with the use of the technology at issue (or input goods used with the
technology to make those products),\textsuperscript{878} the "technology market" (the
intellectual property and technologies or goods that are close substi-
tutes for it),\textsuperscript{879} and the "innovation market" (R\&D and its substi-
tutes).\textsuperscript{880} Such markets will be defined and market shares will be
calculated in the manner specified in the 1992 Guidelines on horizon-
tal mergers.\textsuperscript{881}

The antitrust analysis of licensing arrangements will examine
whether the parties to the arrangement exist in a primarily horizontal
or vertical relationship.\textsuperscript{882} Consistent with the closer level of scrutiny
of horizontal restrictions in other antitrust contexts, the agencies will
likely examine closely any arrangements between firms that manufac-
ture or sell substitute goods, that have rights in substitute technolo-
gies, or that otherwise would have competed absent the license.\textsuperscript{883}
The typical licensing arrangement, however, has a vertical compo-
nent.\textsuperscript{884} Primarily vertical arrangements, where the parties occupy a
seller-buyer relationship or engage in other complementary activities,
will receive less scrutiny, but are not immune from challenge.\textsuperscript{885}

\begin{itemize}
\item \textsuperscript{873} Id. \$ 2.3.
\item \textsuperscript{874} Id.
\item \textsuperscript{875} Id. \$ 3.1.
\item \textsuperscript{876} Id. \$ 3.2.2.
\item \textsuperscript{877} Id. \$ 3.2.3.
\item \textsuperscript{878} Id. \$ 3.2.2 n.20; see supra part IV.A.
\item \textsuperscript{879} 1995 Intellectual Property Guidelines, supra note 643, \$ 3.3.
\item \textsuperscript{880} Id.
\item \textsuperscript{881} Id.
\item \textsuperscript{882} Id.
\item \textsuperscript{883} Id.
\item \textsuperscript{884} Id.
\item \textsuperscript{885} Id.
\end{itemize}
In most cases, intellectual property licensing arrangements will be reviewed under the rule of reason.\textsuperscript{886} The 1995 Guidelines recognize, however, that certain plainly anticompetitive restraints should be treated as unlawful per se.\textsuperscript{887} Examples of restraints warranting per se treatment are price fixing, output restraints, market division by horizontal competitors, resale price maintenance, and certain group boycotts.\textsuperscript{888}

Before determining whether the rule of reason or per se treatment will apply, the agencies will determine whether the restraint “can be expected to contribute to an efficiency-enhancing integration of economic activity.”\textsuperscript{889} This can occur, for example, whenever the licensing arrangement reduces transaction costs or aligns the incentives of the licensor and licensee to promote the licensed technology.\textsuperscript{890} In general, licensing arrangements promote such integrations.\textsuperscript{891} If no efficiency-enhancing integration is found and the restraint is a type that has been accorded per se treatment, the agencies will challenge it under the per se rule.\textsuperscript{892} Otherwise, the rule of reason will be applied.\textsuperscript{893}

The rule of reason inquiry may be “truncated” in certain circumstances.\textsuperscript{894} If a restraint has no anticompetitive effects, the agencies will treat it as reasonable, without analyzing market power or the restraint’s justifications.\textsuperscript{895} If the restraint appears on its face to reduce output or increase prices, it will be challenged without any elaborate analysis of market conditions.\textsuperscript{896}

In a complete rule of reason analysis, the agencies will inquire whether the licensing arrangement is likely to have an anticompetitive effect.\textsuperscript{897} The risk of retarding development of new or improved goods or processes, market structure (market concentration, ease of entry into the market, responsiveness of supply and demand to changes in price), the potential for facilitating pricing or output coordination, and the foreclosure of other parties from the market are all factors examined in the inquiry.\textsuperscript{898}

\textsuperscript{886} Id. § 3.4.
\textsuperscript{887} Id.
\textsuperscript{888} Id.
\textsuperscript{889} Id.
\textsuperscript{890} Id.
\textsuperscript{891} Id.
\textsuperscript{892} Id.
\textsuperscript{893} Id. Commentators have suggested that the 1995 Guidelines, by providing that practices long considered illegal per se may be permissible if they perform an efficiency-enhancing function, are more permissive than the courts have been with respect to such practices. See Bloch, supra note 843, at 15-16.
\textsuperscript{894} 1995 Intellectual Property Guidelines, supra note 643, § 3.4.
\textsuperscript{895} Id.
\textsuperscript{896} Id.
\textsuperscript{897} Id. §§ 4.1-4.1.2.
\textsuperscript{898} Id. § 4.1.1.
If a licensing arrangement is unlikely to have an anticompetitive effect, it will not be challenged.899 If an anticompetitive effect is likely, however, before condemning it the agencies will consider whether the restraint is reasonably necessary in order to achieve procompetitive efficiencies.900 Reasonable necessity may turn on the existence of practical and significantly less restrictive alternatives and the duration of the restraint.901 If the restraint is reasonably necessary, the agencies will then weigh the procompetitive efficiencies and the anticompetitive effects to determine "the probable net effect on competition in each relevant market."902

For the first time, the 1995 Intellectual Property Guidelines articulate a "safety zone" to provide parties some certainty and encourage beneficial licensing arrangements.903 The agencies will not attack a restraint in a licensing arrangement, "[a]bsent extraordinary circumstances," if "(1) the restraint is not facially anticompetitive" (normally warranting per se treatment or otherwise tending almost always to reduce output or increase prices),904 and "(2) the licensor and its licensees collectively account for no more than twenty percent of each relevant market affected by the restraint."905 This safety zone immunity does not apply, however, to transactions that amount to mergers or acquisitions, which continue to be governed by the 1992 Guidelines on horizontal mergers.906

If the license requires analysis of the technology or innovation markets, and market share data are not available or do not represent competitive significance, the second safety zone criterion differs.907 For technology markets, the second criterion is the presence of four or more independently controlled technologies, in addition to that of the licensor and licensees, that may be substitutable for the licensed technology at a comparable cost to the user.908 For innovation markets, the second criterion is the presence of four or more independently controlled entities, in addition to the licensor and licensees, that "possess the required specialized assets or characteristics and the incentive to engage in [R&D] that is a close substitute for the [R&D] activities of the parties" to the license.909

899. Id. § 4.2.
900. Id.
901. Id.
902. Id. The Guidelines note that this balancing is qualitative. As expected anticompetitive effects in a licensing arrangement increase, the agencies will require proof of a greater level of expected efficiencies. Id.
903. Id. § 4.3.
904. Id. § 4.3 & n.30.
905. Id. § 4.3.
906. Id. §§ 4.3, 5.7 & n.37.
907. Id. § 4.3.
908. Id.
909. Id.
The 1995 Intellectual Property Guidelines also apply their principles to particular types of licensing arrangements. These include horizontal restraints (per se or rule of reason treatment),\textsuperscript{910} resale price maintenance (per se),\textsuperscript{911} tying arrangements (per se or rule of reason),\textsuperscript{912} exclusive dealing (rule of reason),\textsuperscript{913} cross-licensing and pooling arrangements (per se or rule of reason),\textsuperscript{914} and grantbacks (rule of reason).\textsuperscript{915} The discussions provide a useful starting point for practitioners devising an antitrust counseling strategy involving similar transactions.

Recent enforcement efforts illustrate that the DOJ's more aggressive approach is consistent with the sharpened focus of the 1995 Intellectual Property Guidelines. In United States v. S.C. Johnson & Son,\textsuperscript{916} the DOJ challenged a nonexclusive vertical license granted by Bayer, a foreign insecticide supplier to the leading domestic insecticide seller. The license apparently did not preclude the licensor from entering the domestic market. The DOJ alleged, however, that the license reduced the licensor's incentives to enter the domestic market and become a horizontal competitor of the licensee. The DOJ reasoned that the licensor effectively chose not to compete in the domestic market because it had considered entering the market, chose not to, and licensed its technology instead.\textsuperscript{917} In addition, although the license was nonexclusive, the DOJ found it significant that the licensor chose not to license any other entity, and thus viewed the license as if it were exclusive.\textsuperscript{918} The DOJ also relied on the fact that the licensor had licensed a company with a large share of the domestic market rather than one with a smaller share, suggesting that such a licensor needs to license smaller firms when it licenses the largest firm in a concentrated market.\textsuperscript{919}

The case appears to follow basic statements in the 1995 Intellectual Property Guidelines that antitrust concerns may arise when a licensing arrangement harms competition among entities that would have been actual or likely potential competitors in the absence of the license,\textsuperscript{920} that licensors and licensees in a complementary or vertical relationship may also occupy a horizontal relationship,\textsuperscript{921} and that the enforcement agencies will focus on the actual effects of a license rather

\textsuperscript{910} Id. § 5.1.
\textsuperscript{911} Id. § 5.2.
\textsuperscript{912} Id. § 5.3.
\textsuperscript{913} Id. § 5.4.
\textsuperscript{914} Id. § 5.5.
\textsuperscript{915} Id. § 5.6.
\textsuperscript{917} Id. at 43,860.
\textsuperscript{918} Id. at 43,863.
\textsuperscript{919} Id.
\textsuperscript{920} 1995 Intellectual Property Guidelines, \textit{supra} note 643, § 3.1.
\textsuperscript{921} Id. § 3.3.
than on its formal terms. The 1995 Guidelines note that "[a] firm will be treated as a likely potential competitor if there is evidence that entry by that firm is reasonably probable in the absence of the licensing arrangement." The evidence that Bayer would enter the domestic insecticide market with reasonable probability was apparently the fact that it had considered entering the market, but instead decided to license its insecticide ingredient.

The license, however, did not restrict Bayer's ability to enter the market either at the time of the license or at any time in the future. There was also no restriction on Bayer's ability to license its ingredient to a licensee other than S.C. Johnson in the future. It is difficult to reconcile the enforcement analysis of this license with the Guidelines' statement that "[a] non-exclusive license . . . that does not contain any restraints on the competitive conduct of the licensor or the licensee generally does not present antitrust concerns even if the parties . . . are in a horizontal relationship," and the general policy of promoting innovation and other procompetitive benefits of licensing.

From a practical point of view, moreover, it is unclear how a firm can go through its business analysis of the options (to license intellectual property or enter a market related to that property, or both) without drawing antitrust scrutiny. In S.C. Johnson, the license arrangement and its commercial context were not at all unusual. Thus, the implications of the case—that licensors should consider market entry and other options before granting a license, that they must avoid entering arrangements with only a large market player, and that they must license more than one licensee—could very well chill efforts to license technology.

In United States v. Microsoft Corp., the DOJ challenged license practices imposed vertically by Microsoft. Microsoft allegedly had monopoly power in computer operating system technology, and the imposed sales practices allegedly made it more difficult for competing operating systems developers to find a market for their products. Among the practices challenged were pricing provisions requiring computer manufacturers to pay a license fee on a per-processor basis, whether or not Microsoft's MS-DOS was installed on a sold proces-

922. Id. § 3.1.
923. Id. § 3.1 n.14.
924. Id. § 4.1.2.
925. Id. § 2.3.
926. For a discussion along the same lines, see Robert P. Taylor, Pilkin
tive Impact Statement).
928. Id. at 42,846.
In addition, long term contracts locked in computer manufacturers.\textsuperscript{930} Although both \textit{S.C. Johnson} and \textit{Microsoft} involved challenges to vertical licensing arrangements, the challenge in \textit{Microsoft} is much less surprising. The contracts that required computer manufacturers to pay a license fee to Microsoft, regardless of the installation of MS-DOS on any given computer sold by the manufacturers, restrained the manufacturers from using operating systems of Microsoft's competitors. Even though the contracts did not explicitly require exclusive dealing between Microsoft and its licensees, they had the effect of exclusivity because they significantly increased the licensees' costs when they used competing technologies.\textsuperscript{931} The licensees were faced with a disincentive to sell computers with other operating systems because they would have been forced to pay license fees to two operating system providers. As a result, the arrangement likely reduced competition in the operating system market by foreclosing the exploitation and development of non-Microsoft operating systems.\textsuperscript{932}

\textbf{Conclusion}

This section of the Report has attempted to set out a basic perspective of antitrust considerations relevant to the information superhighway. It is anything but exhaustive, but it is a starting point for practitioners who may be confronted with competition issues down the road.

However we define the information superhighway, it is anything but static. Consumers will act on their preferences and change them. Market players will succeed and fail. Driven by technology and innovation, tangible and intangible products and services and their distribution channels will continue to evolve. Market players will rely increasingly on mergers, licensing arrangements, joint ventures, marketing alliances, and other strategies to share risks and resources as they seek their market footholds. It will remain challenging for the courts, the enforcement agencies, and the parties before them to keep pace with such developments, as they assess antitrust concerns against the realities of the changing competitive environment.

\textsuperscript{929} \textit{Id.} at 42,850.
\textsuperscript{930} \textit{Id.}
\textsuperscript{932} See \textit{id.} §§ 4.1.1, 5.4. Under the Guidelines, the long term contracts that locked in computer manufacturers were likely to result in an anticompetitive effect. See \textit{id.} § 5.4.