

Abstract:

Michael Betts is currently pursuing a J.D. at The University of Oklahoma College of Law. Below, Mr. Betts begins the first part of a three-part series of articles. Here, he discusses whether the United States can effectuate its Science and Technology Policy in the face of antitrust regulation. He focuses on the United States' emphasis on strengthening its Information Technology industry and the problems presented by Section 1 of the Sherman Antitrust Act. Mr. Betts concludes that Section 1 of the Sherman Act affords enough flexibility to promote the unabashed pursuit of United States S&T Policy.

**PLUNGING INTO THE INFORMATION AGE: THE EFFECT OF CURRENT
COMPETITION POLICY ON UNITED STATES SCIENCE AND TECHNOLOGY
POLICY**

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I. Introduction

Human civilization is on the brink of a new revolution. No longer can one simply create commodities faster and cheaper and expect to come out ahead. Instead, winners of the global scramble for economic supremacy will be those who develop talent, techniques, and tools so advanced that there is no competition.¹ To better cope with these aims of the new Information Age and maintain its global technological preeminence, the United States must actively pursue its Science and Technology Policy (S&T policy). However, the question is whether current competition policy, under Section 1 of the Sherman Act,² remains valid when one strives to foster innovative industries. In other words, can the goals of S&T policy in the United States be effectively pursued in the face of current antitrust law?

This e-Brief concludes that the goals of S&T policy in the United States can indeed be effectively pursued under the current antitrust law. The first section of this paper outlines the

¹ Letter from George Scalise, Chairman, Subcomm. on Info. Tech. Mfg. and Competitiveness, to John Marburger, Director, Office of Science and Technology Policy, and Floyd Kvamme, Co-Chair, PCAST (Jan 16, 2004) (on file with author).

² Limiting the scope of this e-Brief to only Section 1 of the Sherman Act was done for two practical reasons. First and foremost, the scope was limited because only Section 1 covers combinations or conspiracies in restraint of trade. Targeting concerted action was ideal given that the U.S. S&T Policy of fostering IT industries included increasing R&D through use of a "Bell Lab" model. And secondly, time and space requirements favored analyzing only Section 1.

United States' S&T policy, and examines the difficulties of implementing this policy given the objectives of current antitrust enforcement and competition in innovative markets. The second section of this paper provides an overview of the current law, giving specific attention to summary judgment in antitrust suits. The final section discusses the potential role of summary judgment in reconciling S&T policy with the objectives of current antitrust enforcement.

II. Point: Current Antitrust Law will Interfere with United States S&T Policy

A. United States S&T Policy

Since the conclusion of World War II, the United States has been steadily moving into what may be perceived as a "manufacturing crisis." In 1947, United States manufacturing industries accounted for 27% of gross domestic product (GDP).³ By 2001, manufacturing's share of GDP declined to 14%.⁴ Moreover, the percentage of United States full-time manufacturing sector employees declined from 30% to 15% over the same period of time.⁵

Despite the significant decreases in these indicators, manufacturing output has remained steady if not increased. In fact, between 1977 and 2001, manufacturing output, as measured in 1996 dollars, has nearly doubled.⁶ The reason for this increase in output is the increase in United States production efficiency. Now, fewer and fewer people are needed to make the same amount of goods. This is not necessarily a bad thing; with increases in productivity efficiency come higher wages and higher standards of living.⁷

United States policy-makers believe the underlying basis of this increase in productivity has been continued Information Technology (IT) innovation and the integration of IT into the

³ PRESIDENT'S COUNCIL OF ADVISORS ON SCI. & TECH., SUSTAINING THE NATION'S INNOVATION ECOSYSTEMS: REPORT ON INFORMATION TECHNOLOGY MANUFACTURING AND COMPETITIVENESS 3 (2004).

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ *Id.* at 4.

manufacturing process.⁸ A recent study by the Institute for International Economics that supports this proposition found that companies intensively using IT accounted for 75% of productivity gains throughout the 1990s.⁹ Additionally, jobs at "IT producing" companies rose 4% per year through the 1990s, while jobs at "IT using" companies rose 7% per year.¹⁰ Even with these gains, policy-makers believe there is still room for more integration of IT.¹¹ They point to the large portions of United States manufacturing remaining virtually untouched by the positive effects of recent improvements in IT.¹²

Facing this empirical evidence, policy-makers believe that additional IT development will give the United States the necessary tools to adapt to the pressures of global competition and maintain its competitive edge.¹³ Retaining the competitive edge requires strengthening research and development (R&D), potentially through the use of a next generation "Bell Labs" model.¹⁴

B. Objectives of Antitrust Enforcement

In 1938, David Cushman Coyle noted that antitrust law should be used to create a "democratic high-technology system."¹⁵ Implicit in Mr. Coyle's thoughts are ideas of enhancing economic welfare.¹⁶ This objective is pursued by preventing conduct that reduces the number of market participants or their ability to compete.¹⁷ Essentially, antitrust law aims to avoid

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ *Id.* at 5.

¹⁴ *Id.* at 25. A Bell Labs model refers to large R&D centers epitomized by Bell Labs. Bell Labs was the research and development arm of the United States Bell System. It was the premier corporate facility of its type, developing a range of revolutionary technologies from telephone switches to specialized coverings for telephone cables, including the famous discovery of the transistor. *Id.*

¹⁵ David Hart, *Antitrust and Technological Innovation*, ISSUES SCI. & TECH, Winter 1998, para. 1, <http://www.issues.org/issues/15.2/hart.htm>.

¹⁶ David Encaoua & Abraham Hollander, *Competition Policy and Innovation*, 18 OXFORD REV. ECON. POL'Y 63 (2002).

¹⁷ *Id.*

conditions where an individual firm or group of firms becomes immune to the disciplining influences of competitor rivalry.¹⁸

The problem is that these objectives were influenced and shaped by traditional sectors of the economy.¹⁹ That is, the effects of competition in IT industries simply do not match the effects of competition in more traditional sectors.²⁰ Thus, the debate over whether antitrust enforcement objectives created for the industrial age can survive the leap into the information age rages. The effects of competition in IT industries are discussed below.

C. Competition in IT Industries

Competition in IT industries is best described as a perpetual race to develop new technologies.²¹ The winner of the "race" is the firm that brings the new product to the market the quickest.²² Generally, the first-mover quickly attains the leadership position in the product market.²³ However, this does not mean that the winner can rest and enjoy the fruits of victory. Rather, maintaining market leadership requires the immediate entering of a new race, or, in other words, continually introducing innovative products into the product market.²⁴ Accordingly, a string of wins by the same market leader does not necessarily mean that competition is absent because businesses must constantly strive to maintain their competitive advantage. This differs greatly from the traditional sector where new market entrants slowly gain market share.²⁵

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.* at 64-65.

²² *Id.* at 65.

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

In addition to racing for the market, IT industries incur substantial R&D costs that are largely independent of output.²⁶ So, as output increases, average total cost of production decreases. The implication is that "IT firms cannot survive by setting price close to marginal cost of production."²⁷

D. Difficulties in Implementing S&T Policy

Competition in IT industries creates the same hazards as those created by the anticompetitive monopolist. That is, the competition results in one significant market leader pricing above marginal cost. In furthering economic welfare, it is clear that antitrust enforcement does not allow this outcome. Accordingly, many potential entrants could be scared away by the threat of antitrust liability. This potential lack of new entrants would have a chilling effect on the market, since competition in IT industries depends primarily on competitors perpetually racing for the product market. Without new entrants, incumbents, such as Microsoft, would no longer be disciplined by competition. Therefore, the industry leaders would assert their market power, implicating further antitrust enforcement, thereby deteriorating the situation even further.

In addition to potential monopolization issues, the United States may face further antitrust issues when developing the "Bell Labs" model for strengthening R&D. As discussed below, antitrust regulators frown upon horizontal agreements or agreements between competitors²⁸ because there is potential risk for collusion, loss of competition, and market exclusion.²⁹ Accordingly, they are frequently held to be presumptively anticompetitive and

²⁶ *Id.*

²⁷ *Id.*

²⁸ See *infra* notes 46-47.

²⁹ See Joseph Brodley, *Joint Ventures and Antitrust Policy*, 95 HARV. L. REV. 1521, 1530 (1982).

illegal.³⁰ Consequently, any agreement between competitors, even joint R&D programs, may be subject to suit. In response, Congress has passed legislation to promote pro-competitive R&D.³¹ However, the threat of antitrust liability still looms. Thus, commentators recommend that firms avoid such agreements despite Congress's efforts to promote pro-competitive R&D.³²

For these reasons, many argue it is doubtful that the United States can actively pursue its S&T policy of IT development without the hindrance of antitrust regulation. The question now becomes whether opponents are correct in asserting that current antitrust regulation is obsolete. A look into the current status of antitrust statutory and case law will assist in determining the answer to this question.

III. Current State of the Law

A. The Sherman Act

The Sherman Antitrust Act of 1890 represents Congress's first attempt at enhancing economic welfare.³³ The statute itself is quite enigmatic. Accordingly, it has been characterized as a "charter of freedom with a generality and adaptability comparable to that found desirable in constitutional provisions."³⁴ The substantive provisions of the Act are Section 1 and Section 2.³⁵

³⁰ See *infra* note 44.

³¹ See 15 U.S.C. §§ 4302-4303 (Supp. IV 2004) (disregarding the "per se" test and establishing the "rule of reason" analysis, as well as limiting recovery to actual damages).

³² Hart, *supra* note 16, para. 17..

³³ See *Appalachian Coals, Inc. v. United States*, 288 U.S. 344, 359 (1933), *rev'd on other grounds*, **Error! Main Document Only.** *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752 (1984) (holding that the purpose of the Sherman Anti-Trust Act is to prevent undue restraints of interstate commerce, to maintain its appropriate freedom in the public interest, and to afford protection from the subversive or coercive influences of monopolistic endeavor).

³⁴ *Id.* at 359-60.

³⁵ See 15 U.S.C. §§ 1-2 (Supp. IV 2004).

Section 1 provides that "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal."³⁶ Section 1 requires more than one party.³⁷

Section 2 creates liability for "[e]very person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce."³⁸ Unlike Section 1, Section 2 may apply to only a single firm's conduct.

Because Section 1 requires a combination of at least two actors and Section 2 reaches unilateral conduct only when there is sufficient market power to create or threaten to create a monopoly, the Act does not reach restraints by single forms with no market power.³⁹

B. Rule of Reason and Per Se Rule

Every trade agreement or combination will inevitably restrain trade to some degree.⁴⁰ If taken literally, Section 1 would then make every agreement or combination regarding commerce illegal.⁴¹ Consequently, two tests have been developed by the courts when considering Section 1 of the Sherman Antitrust Act, the "rule of reason" and the "per se" rule. Both tests determine whether a given activity is illegal as an unreasonable restraint of trade.

The "per se" rule was established in *United States v. Socony-Vacuum Oil Co., Inc.*⁴² The Supreme Court reserved this ruling to instances where the determination is based upon naked restraints of trade. Naked restraints are restraints with no legitimate justification and that lack

³⁶ *Id.* § 1.

³⁷ *See generally* *United States v. Colgate Co.*, 250 U.S. 300 (1919) (construing Section 1 to require two or more actors).

³⁸ 15 U.S.C. § 2.

³⁹ *See* Glen O. Robinson, *Explaining Vertical Agreements: The Colgate Puzzle and Antitrust Method*, 80 VA. L. REV. 577, 593 (1994).

⁴⁰ *See* *Chi. Bd. of Trade v. United States*, 246 U.S. 231, 238 (1918).

⁴¹ *See* *Standard Oil Co. v. United States*, 221 U.S. 1, 60 (1911).

⁴² *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 218 (1940).

any redeeming competitive purpose.⁴³ The Court views activities governed by the "per se" rule as presumptively anticompetitive and illegal.⁴⁴ The underlying idea of such a rule is promotion of certainty for business men and reduction of wasteful judicial investigation.⁴⁵ Some examples of conduct deserving "per se" rule include: horizontal price-fixing,⁴⁶ horizontal division of markets,⁴⁷ group boycotts,⁴⁸ and tying arrangements.⁴⁹

When the "per se" rule is not applicable, courts will apply a less stringent test known as "rule of reason." Courts will apply the "rule of reason" test when a court finds that the alleged anticompetitive conduct is ancillary and necessary to achieve a legitimate purpose.⁵⁰ Under the "rule of reason" analysis, courts determine whether the alleged anticompetitive conduct is unreasonable by weighing the pro-competitive benefits against anti-competitive threats.⁵¹ Courts examine the alleged anticompetitive conduct within the context of the market.⁵² Specifically, courts examine the market structure.⁵³ Primary examples of conduct which warrant rule of reason analysis include joint ventures and cooperative research ventures.⁵⁴

⁴³ See *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 5 (1958).

⁴⁴ See *Socony-Vacuum Oil Co.*, 310 U.S. at 223.

⁴⁵ See *United States v. Topco Assocs.*, 405 U.S. 596, 614-615 (1972).

⁴⁶ See *United States v. Trenton Potteries Co.*, 273 U.S. 392, 395 (1927).

⁴⁷ See *Topco Assocs.*, 405 U.S. at 608.

⁴⁸ See *Klor's Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207, 212 (1959).

⁴⁹ See *Int'l Salt Co. v. United States*, 332 U.S. 392, 399 (1947).

⁵⁰ See *NCAA v. Bd. of Regents*, 468 U.S. 85, 100-01 (1984). Although the NCAA's broadcasting plan resulted in horizontal price-fixing and output restriction, the "per se" rule was not applied. Rather, rule of reason analysis was utilized because it was found that horizontal restraints on competition were essential if the product was to be available at all. *Id.*

⁵¹ See *supra* note 40.

⁵² See *United States v. Container Corp.*, 393 U.S. 333, 339 (1969) (Fortas, J., concurring) (contending that an agreement between the relatively few dominant sellers of corrugated containers, a fungible product for which demand was inelastic, to give to each other on request information as to most recent price charged or quoted, resulting in stabilization of prices, constituted an unreasonable restraint of trade).

⁵³ See *United States v. U.S. Gypsum Co.*, 438 U.S. 422, 441 n.16 (1978) ("A number of factors including most prominently the structure of the industry involved and the nature of the information exchanged are generally considered in divining the procompetitive or anticompetitive effects . . .").

⁵⁴ See generally Thomas Jorde & David Teece, *Rule of Reason Analysis of Horizontal Arrangements: Agreements Designed to Advance Innovation and Commercialize Technology*, 61 ANTITRUST L.J. 579 (1993).

C. Summary Judgment in Antitrust Suits

In *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*,⁵⁵ the United States Supreme Court considered the standard for summary judgment which district courts must apply in an antitrust conspiracy case.⁵⁶ In this case, Zenith and National Union alleged that twenty-one Japanese or Japanese-run firms conspired to drive United States firms out of the market by pricing below cost.⁵⁷ The Court held that the factual context of Zenith and National Union's claim was implausible.⁵⁸ The Court placed a burden on a plaintiff bringing an antitrust lawsuit to show an "inference of conspiracy [is] reasonable in light of the competing inferences of independent action or collusive action that could not have harmed [them]."⁵⁹ Since Zenith and National Union could not meet this additional burden, the Court affirmed the grant of summary judgment in favor of the defendant, Matsushita.⁶⁰

As a matter of procedure, this decision increased the plaintiff's burden of persuasion beyond that which is normally required under a defendant's summary judgment motion. In effect, this gave trial judges broader discretion in granting summary judgment. It now seems that these judges can use the Matsushita approach to dispose of unnecessary antitrust cases.

IV. Counter-Point: The Dynamic Nature of Current Antitrust Law Allows for the United States to Pursue its S&T Policy

By affording trial judges greater discretion, the Matsushita standard of summary judgment can have the dual effect of increasing a firm's incentive to vigorously compete in the IT market and to participate in cooperative research ventures, thereby furthering United States S&T Policy. However, many argue that summary judgment should be used sparingly in antitrust

⁵⁵ 475 U.S. 574 (1986).

⁵⁶ *Id.* at 576.

⁵⁷ *Id.* at 577-78.

⁵⁸ *Id.* at 595.

⁵⁹ *Id.* at 588.

⁶⁰ *Id.* at 598.

litigation. For example, in Matsushita's dissent, Justice White strongly disagreed that "a judge hearing a defendant's motion for summary judgment in an antitrust case should go... and decide for himself whether the weight of evidence favors the plaintiff."⁶¹ He believed, as did the other dissenting justices, that broadening the use of summary judgment "invaded the fact-finder's province."⁶² This concern is a bit overstated. To illustrate this point, consider the "per se" rule.

As previously stated, the "per se" rule was established as a means to promote certainty and judicial economy.⁶³ Furthermore, courts formulated the "per se" rule because of their "inability to weigh, in any meaningful sense, destruction of competition in one sector against promotion of competition in another."⁶⁴ To comply with these objectives, a judge must invoke the "per se" rule if he decides, for himself, that the alleged conduct is inherently anti-competitive.⁶⁵ This determination effectively ends any inquiry from an evidentiary standpoint.⁶⁶ Thus, it seems that, by its very nature, the "per se" rule "[invades] the fact-finder's province."⁶⁷ Despite this encroachment, the "per se" rule continues to play an integral part in antitrust regulation. Similar to the "per se" rule, the potential benefits of Matsushita outweigh Justice White's concern.

Like the "per se" test, Matsushita decreases judicial waste. Furthermore, it provides one way in which antitrust laws can be reconciled with United States S&T policy. Given the fast paced and uncertain nature of the IT market,⁶⁸ plaintiffs may struggle to present plausible claims.

⁶¹ *Id.* at 600.

⁶² *Id.* at 601.

⁶³ *See supra* note 45.

⁶⁴ *See* United States v. Topco Assocs., 405 U.S. 596, 609-10 (1972).

⁶⁵ *See supra* note 44.

⁶⁶ *Id.*

⁶⁷ *See supra* note 62.

⁶⁸ *See supra* note 22.

Since this increases the burden on the Plaintiff,⁶⁹ the likelihood of successful dismissals would increase, thereby providing defendants with increased security from antitrust liability. This increased confidence would likely result in more firms entering the market and developing cooperative R&D programs. Consequently, United States S&T policy and antitrust enforcement, though seemingly at odds, work in concert with one another through the Matsushita Standard.

V. Conclusion

Though it is clear that the United States must grow its IT industries, it is unclear whether this goal is stymied by current antitrust law. Many argue that innovative industries, by their very nature, appear to be anti-competitive when in fact they are not. These individuals conclude that current antitrust laws inhibit growth of innovative industries. To the contrary, antitrust laws have adaptability comparable to the United States Constitution.⁷⁰ This adaptability is epitomized by Matsushita's standard of summary judgment. By allowing judges increased discretion to grant summary judgment in antitrust suits, firms in IT industries are afforded greater security that they will not be victim to antitrust liability. The implication is that more competitors will race for the market and pursue participative research ventures. Therefore, it seems that in the end, the dynamic nature of antitrust policy allows for the United States to unabashedly pursue its S&T policy.

⁶⁹ See *supra* note 59.

⁷⁰ See *supra* note 34.