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Do Antitrust Laws Hinder American Technological Innovation

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DO ANTITRUST LAWS HINDER AMERICAN TECHNOLOGICAL INNOVATION?

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TABLE OF CONTENTS

I. INTRODUCTION

A JOINT VENTURE is broadly defined as an association of individuals or companies jointly undertaking a commercial enterprise for mutual profit and under shared risk. Like other potentially anticompetitive activities, joint ventures are subject

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to the restrictions of both the Sherman Act and the Federal Trade Commission Act (FTC Act).

Section 1 of the Sherman Act states 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 . . . illegal."[1] Section 5 of the FTC Act declares unlawful any "[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce."[2]

Some experts posit that harsh antitrust laws prevent the formation of joint ventures in the areas of research and development (R&D) and production.[3] This may be the reason why the United States is at a competitive disadvantage in the global marketplace. The National Cooperative Research and Production Act of 1993 (NCRPA)[4] purports to ease the standards by which these types of joint ventures are judged. But is this softening sufficient to level the playing field and propel the United States back to the forefront of the global economy? And is there even a problem with the status quo regarding American technological innovation?

This Comment will analyze the current treatment of joint ventures generally. More specifically, it will discuss American treatment of joint R&D and production ventures and the standards used to judge their formation and existence. In addition, the Comment contemplates proposals to alter the current treatment of these joint ventures and includes a discussion of several other possible reasons for America's falling behind in the global race for innovation. Finally, this Comment will argue that since there is actually no problem with American technological innovation, a modification of our antitrust laws is not necessary.

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1 15 U.S.C. § 1 (1994).

2 15 U.S.C. § 45(a)(1) (1994).

3 *See* Thomas M. Jorde & David J. Teece, *Innovation, Cooperation and Antitrust*, 4 HIGH TECH. L.J. 1, 3 (1989). *But see* Joel B. Eisen, *Antitrust Reform for Joint Production Ventures*, 30 JURIMETRICS J. 253, 261 (1990) (stating that antitrust laws are "remarkably flexible," and do not represent a barrier to consortia formation).

4 *See* National Cooperative Production Amendments of 1993, Pub. L. No. 103-42, § 2(b), 107 Stat. 117 (1993) (codified as amended at 15 U.S.C. §§ 4301-4306 (1994)).

II. JOINT VENTURE STANDARDS

Courts have realized that virtually every agreement between business entities "restrains" trade in a sense.[5] Therefore, courts and federal enforcement agencies, including the Department of Justice (DOJ) and the Federal Trade Commission (FTC), interpret the statutes to only prohibit contracts that are "unreasonably" restrictive of competition.[6] Under what is known as the "rule of reason," the anticompetitive effects of an agreement in restraint of trade are balanced against its procompetitive benefits to determine whether a joint venture unlawfully restrains trade.[7] Also, certain types of agreements are deemed per se illegal such that no procompetitive justifications will save them from a violation of the antitrust laws.[8]

The courts recognize that joint ventures that involve a true integration of their members' resources might generate substantial efficiencies and should therefore be evaluated under the rule of reason.[9] Thus, while prior to the NCRPA no bright line rule appeared to exist, if the joint venture did not *appear* on its face to restrain trade, it was not deemed per se illegal.[10]

In contrast, in *Maricopa County* the Supreme Court struck down as per se illegal a price fixing agreement among competing medical doctors that created a fee schedule for services pro-

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[5] *See* United States v. Topco Assoc. Inc., 405 U.S. 596, 606 (1972); Chicago Bd. of Trade v. United States, 246 U.S. 231, 238 (1918).

[6] *See* Business Elec. Corp. v. Sharp Elec. Corp., 485 U.S. 717, 723 (1988); NCAA v. Board of Regents, 468 U.S. 85, 98 (1984); Arizona v. Maricopa County Med. Soc'y, 457 U.S. 332, 342-43 (1982); Standard Oil Co. v. United States, 221 U.S. 1, 59-62 (1911).

[7] *See* Continental T.V., Inc. v. GTE Sylvania, Inc. 433 U.S. 36, 53-57 (1977); *Maricopa County Med. Soc'y*, 457 U.S. at 343; *Chicago Bd. of Trade*, 246 U.S. at 238.

[8] *See* Northern Pac. Ry. Co. v. United States, 356 U.S. 1, 5 (1958); *Topco Assoc., Inc.*, 405 U.S. at 607.

[9] *See* Broadcast Music, Inc. v. CBS, 441 U.S. 1, 20-24 (1979); *Northern Pac. Ry. Co.*, 356 U.S. at 5.

[10] *See, e.g.*, *NCAA*, 468 U.S. at 113 (stating that per se treatment is inappropriate if "a joint selling agreement [makes] possible 'a new product by reaping otherwise unattainable efficiencies'") (quoting *Maricopa County Med. Soc'y*, 457 U.S. at 365 (Powell, J., dissenting)); *Broadcast Music, Inc.*, 441 U.S. at 20-24 (showing how blanket licenses permitting licensees to perform any and all musical compositions of the licensing agencies' members did not simply act as a restraint of trade and, therefore, "should be subjected to a more discriminating examination under the rule of reason"); Association of Indep. Television Stations v. College Football Ass'n, 637 F. Supp. 1289, 1296 (W.D. Okla. 1986) (holding that an intercollegiate football association acting as joint venture could not be condemned as per se unlawful because cooperation may "foster [ ] production and efficiency").

vided under health plans.[11] In reaching this conclusion, the Court noted the absence of any integrative efficiencies that resulted in its finding of a simple price fixing agreement among competitors.[12]

The threshold issue with respect to a joint venture involving actual or potential competitors is whether it involves a sufficient integration of the economic resources of the parties to escape condemnation as a per se unlawful cartel arrangement.[13] If a joint venture actually involves the integration of the parties' productive assets in a manner that "hold[s] the promise of increasing a firm's efficiency and enabling it to compete more effectively,"[14] the Supreme Court has held that it should be evaluated under the rule of reason.

For example, in *Broadcast Music, Inc. v. CBS*, the Supreme Court determined that the rule of reason was appropriate because the blanket license was "not a 'naked restrain[t] of trade with no purpose except stifling of competition,' but rather accompanie[d] the integration of sales, monitoring, and enforcement against unauthorized copyright use."[15] The Court decided that the rule of reason was appropriate because the venture offered substantial efficiencies that were potentially beneficial to both sellers and buyers.[16]

Numerous other cases illustrate the Supreme Court's approach toward drawing the line between per se unlawful cartel activity and legitimate joint ventures subject to review under the rule of reason. For instance, in *U.S. Healthcare, Inc. v. Healthsource, Inc.*, an exclusive dealing arrangement warranted rule of reason treatment because it was not a horizontal agreement "devoid of joint venture efficiencies."[17] In *Addamax Corp. v. Open Software Found., Inc.*, the court held that "[i]f . . . the joint venture is based on a lawful attempt to integrate resources, the agreement is measured according to the standard 'rule of reason' analysis."[18]

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[11] *See Maricopa County Med. Soc'y*, 457 U.S. at 356-57.

[12] *See id.* at 356.

[13] *See* Copperweld Corp. v. Independence Tube Corp., 467 U.S. 752, 767-68 (1984); Continental T.V., Inc. v. GTE Sylvania, Inc., 433 U.S. 36, 53-57 (1977).

[14] *Copperweld Corp.*, 467 U.S. at 768.

[15] 441 U.S. at 20 (quoting White Motor Co. v. United States, 372 U.S. 253, 263 (1963)).

[16] *See id.* at 22-24.

[17] 986 F.2d 589, 594 (lst Cir. 1993).

[18] 888 F. Supp. 274, 281 (D. Mass. 1995); *see also* National Bancard Corp. v. VISA U.S.A., Inc., 779 F.2d 592, 599 (11th Cir. 1986) (stating that "*BMI's* underly-

An arrangement qualifies for rule of reason analysis as a joint venture only when it involves some potential for an efficiency-generating integration of the parties' resources. When the alleged efficiencies are illusory, the characterization of an agreement as a "joint venture" will not save it from per se illegality. Courts have found so-called joint venture arrangements per se unlawful where there was no meaningful integration and the arrangement merely served as a device to fix prices or allocate customers.[19]

Competitors may characterize the sharing of information or resources as part of a "strategic alliance" or "joint venture" in an effort to take advantage of any perceived leniencies in antitrust law toward joint ventures. But, once again, the mere labeling of an arrangement as a "joint venture" will not legitimize an otherwise illegal agreement between competitors to suppress competition.[20] An arrangement violates the Sherman Act when it is anticompetitive, regardless of the name of such an arrangement.[21]

The courts look at several factors when determining if the rule of reason should apply:

1. Potential for economies of scale;[22]

2. Non-exclusivity—an arrangement in which the participants are not restricted from selling separately outside the venture.[23] A joint venture with ancillary agreements that prevent the par-

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ing teaching therefore appears to be that courts should look to whether the restraint at issue [in the joint venture] potentially could create an efficiency enhancing integration to which the restraint is ancillary"), *cert. denied*, 479 U.S. 923 (1986); Premier Elec. Constr. Co. v. National Elec. Contractors Ass'n, 814 F.2d 358, 370-71 (7th Cir. 1987) (holding that "there [must] be some productive cooperation as a condition of the application of the Rule of Reason [*sic*] . . . .").

[19] *See, e.g.*, Engine Specialties, Inc. v. Bombardier Ltd., 605 F.2d 1, 11 (1st Cir. 1979) (holding that "[t]he talisman of 'joint venture' cannot save an agreement otherwise inherently illegal"), *adhered to per curiam on reh'g*, Engine Specialties, Inc. v. Bombardier, Ltd. 615 F.2d 575 (1980), *cert. denied*, 446 U.S. 983 *and* Moran v. Gould Corp. 449 U.S. 890 (1980).

[20] *See* NCAA v. Board of Regents, 468 U.S. 85, 113 (1984) (holding that joint ventures are not immune from antitrust scrutiny).

[21] *See* Fuchs Sugars & Syrups, Inc. v. Amstar Corp., 602 F.2d 1025, 1030 (2d. Cir. 1979) (noting that a "Section 1 conspiracy will arise . . . where in addition to . . . [a new distribution system a] manufacturer attempts to exact some collateral anticompetitive advantage"); *see also* Virginia Excelsior Mills, Inc. v. Federal Trade Comm'n, 256 F.2d 538, 540 (4th Cir. 1958).

[22] *See, e.g.*, Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co., 472 U.S. 284, 294-95 (1985).

[23] *See, e.g.*, Broadcast Music, Inc. v. CBS, 441 U.S. 1 (1979) (stating that the artists remained free to license their individual works outside the licensing orga-

ticipants from engaging in any number of activities may be struck down as per se illegal;

3. The creation of a previously unavailable product—this is most obviously the case where the integration of the parties' resources enables them to market a product that the members in their individual capacities could not;[24] and

4. Expansion of output/production—the parties can show that the arrangement, while eliminating competition among the members, provides efficiencies in distribution, advertising, or other marketing-related activities that enable them to compete more effectively and thereby expand their aggregate output.[25]

A "joint venture" is not saved from per se illegality where there is no meaningful procompetitive benefit to be gained as a result of the venture, but rather the arrangement is merely a vehicle through which the parties engage in price fixing or allocation of territories or customers.[26] However, in *Copperweld Corp. v. Independence Tube Corp.*, the Court noted that arrangements that "hold the promise of increasing a firm's efficiency and enabling it to compete more effectively . . . [will be] judged under the rule of reason."[27]

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nizations); Arizona v. Maricopa County Med. Soc'y, 457 U.S. at 332, 355 (1982) (citing *Broadcast Music, Inc.*, 441 U.S. at 22).

[24] *See, e.g.*, ROBERT H. BORK, THE ANTITRUST PARADOX, A POLICY AT WAR WITH ITSELF 278 (1978) (stating that "some activities can only be carried out jointly. Perhaps the leading example is league sports. When a league of professional lacrosse teams is formed, it would be pointless to declare their cooperation illegal on the ground that there are no other professional lacrosse teams."); *see also Broadcast Music, Inc.*, 441 U.S. at 22 (noting that the blanket license was to some extent, a different product from what the artists could offer individually); *NCAA*, 468 U.S. at 101 (recognizing that the horizontal restraint on competition was essential to make the product, college football, available at all); Association of Indep. Television Stations v. College Football Ass'n, 637 F. Supp. 1289, 1297-98 (W.D. Okla. 1986) (showing how summary judgment for plaintiffs is denied where association of college football teams permitted "the packaging and sale of an otherwise impossible national series of games").

[25] *See, e.g.*, *NCAA*, 468 U.S. at 103 (applying rule of reason to sports league, noting that "*Broadcast Music* squarely holds that a joint selling arrangement may be so efficient that it will increase sellers' aggregate output and thus be procompetitive." The NCAA's television plan was nevertheless found to violate the Sherman Act under a rule of reason analysis because it directly restrained output and did not serve any legitimate procompetitive purpose); *Broadcast Music, Inc.*, 441 U.S. at 18-23.

[26] *See* COMPACT v. Metropolitan Gov't, 594 F. Supp. 1567 (M.D. Tenn. 1984) (holding that a joint venture that represented conspiracy to divide markets and to interfere with bidding structure for public contracts was per se illegal).

[27] 467 U.S. 752, 768 (1984) (dictum).

Therefore, rule of reason treatment of most joint ventures will be granted if the arrangement is not a cloak for what is simply a naked price fixing arrangement, territorial allocation, or other form of per se illegal conduct.

III. TYPES OF JOINT VENTURES

Ostensibly, the most anticompetitive type of joint venture is a joint sales venture—one in which the venture serves as a joint sales agent for the participants. For example, a joint selling arrangement, also termed a joint marketing venture, provides an obvious mechanism whereby competitors may fix prices or output or allocate customers.[28] This risk is more salient when the joint sales arrangement is exclusive, thereby barring the members of the venture from selling individually outside the venture.[29] There is also an increased risk of trade restraint if pricing and output decisions are made centrally through the joint sales organization.[30] In these circumstances, and in the absence of real integration and substantial efficiencies, the courts hold that exclusive joint marketing agreements among competitors are per se unlawful.[31]

Joint sales ventures raise more serious antitrust concerns than do R&D or production joint ventures—the reason they are subject to heightened scrutiny. The NCRPA provides for more lenient treatment of R&D and production joint ventures.[32] Joint marketing and sales ventures are excluded from the scope of the NCRPA—one indication that they will continue to be viewed with some skepticism.

Other types of joint ventures, and those that are the focus of this comment, include R&D arrangements and joint production ventures. Joint R&D ventures lead to efficiencies and benefits that would otherwise not be available without such cooperation. For instance, the risks of a large R&D project may be too large for one firm to undertake. But these economic risks become manageable when they are shared among the members of the joint venture. Indeed, in many industries where there are nu-

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[28] *See* Virginia Excelsior Mills, Inc. v. Federal Trade Comm'n, 256 F.2d 538, 540-41 (4th Cir. 1958); *COMPACT*, 594 F. Supp. at 1576-77.

[29] *See COMPACT*, 594 F. Supp. at 1576-77.

[30] *See id.*

[31] *See, e.g.*, United States v. American Smelting & Ref. Co., 182 F. Supp. 834, 860-61 (S.D.N.Y. 1960); *Virginia Excelsior Mills, Inc.*, 256 F.2d at 540-41; *COMPACT*, 594 F. Supp. at 1576-77.

[32] *See* 15 U.S.C. § 4301(b)(2) (1994).

merous participants each with only a small market share, innovation may only be possible through the joint effort of the all of firms.

Production joint ventures involve the participants pooling their resources such that the production of a new or existing product is manufactured more efficiently. This enables each member of the venture to distribute the costs and risks of a project. Such an integration of effort allows the creation of new production facilities or a new product that would otherwise not be available.

Both R&D and production joint ventures can lead to economies of scale and scope and allow all participants of the venture to take advantage of shared skills, capital, resources, and knowledge. This encourages firms to invest in new technology and products and eliminates the duplication of effort that occurs without such ventures. These joint ventures advance industrial economies, enhance economic growth, increase consumer welfare, and lead to innovation that might not otherwise occur. The sharing of risk allows participants to produce a product without the fear that competitors will subsequently produce the same product at a much lower cost. Further, the sharing of resources allows the bridging of a gap that may be necessary for the production of a new product. In these situations, cooperation among competitors leads to advances in technology and productivity that propel the growth of the American economy. This may ultimately lead to more product availability as well as lower consumer prices.

Ancillary restraints are those that affect competition among venture participants or between the joint venture and its members.[33] They can include membership rules, restrictions on competition between the venture and its participants or between the participants themselves, pricing or output restraints, and territorial or customer allocation. These restraints will be upheld only if they are "reasonably necessary" to accomplish the legitimate purpose of the venture.[34] The parties' purpose for the venture determines whether an ancillary restraint is permitted—those that are broader than required to fulfill such a pur-

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[33] *See* M. Laurence Popofsky & Thomas P. Brown, *Production Distribution-The Special Problem of Joint Ventures*, *in* 38TH ANNUAL ANTITRUST SEMINAR: DISTRIBUTION & MARKETING at 505, 518 (PLI Corporate Law and Practice Course Handbook Series No. B-1096, 1999).

[34] *See* Addyston Pipe & Steel Co. v. United States, 175 U.S. 211, 234, 236-38 (1899); United States v. Joint Traffic Ass'n, 171 U.S. 505, 569-71 (1898).

pose will be voided.[35] Unfortunately, just what is reasonably required to carry out the purpose of the venture is a purely subjective determination that is made by the courts on an ad hoc basis since this standard cannot be quantified by the Act.

Many cases in which a joint venture has been challenged as an unreasonable restraint of trade under the Sherman Act have involved these various collateral restraints rather than a challenge to the joint venture itself.[36] Again, if such collateral agreements are ancillary to the joint venture's legitimate business objectives, they will typically be evaluated under the rule of reason.[37]

An agreement among the participants in a joint venture not to compete with the joint venture in the relevant market in which the joint venture operates is likely to be upheld as such a restraint is often viewed as necessary to secure the participants' commitment to the venture.[38] However, an agreement among the joint venture participants not to compete in markets separate from the joint venture market is generally impermissible.[39]

IV. NCRA[40] OF '84 AND THE NCRPA OF '93

Some pundits believe that the antitrust laws have contributed to the economic decline of the United States. Economists Michael Porter of the Harvard Business School and Scott Stern of MIT found that even though American firms have led in innovation in the past, by the year 2005 the United States will trail most countries.[41] This includes countries such as Japan, Sweden, Denmark, and Finland.[42] Congress acknowledged the perceived view that the "antitrust laws may have been mistakenly perceived as inhibiting cooperative innovation arrangements that promote competition" and that "clarification of the law

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35 *See Joint Traffic Ass'n*, 171 U.S. at 570-71; NCAA v. Board of Regents, 468 U.S. 85, 103-04 (1984).

36 *See* Addamax Corp. v. Open Software Found., Inc., 152 F.3d 48, 52 (1st Cir. 1998); Northwest Wholesale Stationers, Inc. v. Pacific Stationary & Printing Co., 472 U.S. 284, 296-97 (1985).

37 *See* Broadcast Music, Inc. v. C.B.S., 441 U.S. 1, 18-23 (1979); *Northwest Wholesale Stationers, Inc.* 472 U.S. at 295-96.

38 *See* Polk Bros., Inc. v. Forest City Enter., Inc., 776 F.2d 185, 190 (7th Cir. 1985). The result may differ if the elimination of the venturers from the market will leave the joint venture with significant market power.

39 *See* Timken Roller Bearing Co. v. United States, 341 U.S. 593, 598 (1951).

40 *See infra* note 47.

41 *See* John Carey, *R&D Blues: U.S. Innovation Ain't What it Used to Be*, BUS. WK., Mar. 22, 1999, at 6.

42 *See id.*

would serve a useful purpose."[43] Indeed, the stated purpose of the '93 Act is "to promote innovation, facilitate trade, and strengthen the competitiveness of the United States in world markets by clarifying the applicability of the rule of reason standard and establishing a procedure under which" joint ventures are to be judged.[44] Even President Clinton asserted that the time has come to level the playing field for American companies. In assessing the problem, President Clinton stated that "[i]t is altogether appropriate to lift the legal barriers that prevent good companies from playing to win in the global market—provided, of course, our antitrust laws continue to prevent improper collusion. Now is the time . . . to strip away outdated impediments to our growth and potential."[45]

The growth and competitiveness of American companies ostensibly have been stifled in the past because the antitrust laws invited the competitors of a joint venture to file suit with the possible reward of treble damages. The threat of litigation and treatment as a per se illegal arrangement was bridling American progress.[46] The proponents of the original National Cooperative Research Act of 1984,[47] among others, believed that without the threat of per se illegality American firms would have an incentive to combine their talent, knowledge, and money for joint R&D. The protection was augmented by the NCRPA as joint production ventures were added to the Act's safe harbor and treble damages were limited in some circumstances.

A. Joint Venture Defined

1. *Included in Definition*

Since joint ventures "defy . . . neat classification and precise definition and . . . well established rules for evaluating their

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43 National Cooperative Production Amendments of 1993, Pub. L. No. 103-42, § 2 (a)(3), 107 Stat. 117 (1993) (codified as amended at 15 U.S.C. §§ 4301-4306 (1994)).

44 *Id.* § 2 (b).

45 S. Rep. No. 103-51, at 10 (1993) (citing White House Press Release, Mar. 11, 1993).

46 *See* Thomas A. Hemphill, *U.S. Technology Policy, Intraindustry Joint Ventures, and the National Cooperative Research and Production Act of 1993*, 32 Bus. Econ. 4, Oct. 1, 1997; National Cooperative Research Act of 1984, Pub. L. No. 98-462, § 4, 98 Stat. 1815 (1984) (codified as amended at 15 U.S.C. §§ 4301-4305 (1988)).

47 *See* National Cooperative Research Act of 1984, Pub. L. No. 98-462, 98 Stat. 1815.

competitive impact [do not exist],"[48] the NCRPA is particularly helpful as it delineates specifically what falls within the ambit of its protection by redefining "joint venture." The Act purports to confine its protection to those joint ventures engaged in R&D and production only:

> (6) [t]he term "joint venture" means any group of activities, including attempting to make, making, or performing a contract, by two or more persons for the purpose of—
> (A) theoretical analysis, experimentation, or systematic study of phenomena or observable facts,
> (B) the development or testing of basic engineering techniques,
> (C) he extension of investigative findings or theory of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, prototypes, equipment, materials, and processes,
> (D) the production of a product, process, or service,
> (E) the testing in connection with the production of a product, process, or service by such venture,
> (F) the collection, exchange, and analysis of research reproduction information, or
> (G) any combination of the purposes specified in subparagraphs (A), (B), (C), (D), (E), and (F) and may include the establishment and operation of facilities for the conducting of such venture, the conducting of such venture on a protected and proprietary basis, and the prosecuting of applications for patents and the granting of licenses for the results of such venture, but does not include any activity specified in subsection (b) of this section.[49]

2. *Excluded from Definition*

So precise is the new law, that it also lists those activities that are not entitled to the Act's protection and remain subject to treble damages and per se illegality. Therefore, if section 4301(a)(6) seems too broad, section (b) specifically eliminates a number of practices from the Act's protection:

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[48] *See* COMPACT v. Metropolitan Gov't, 594 F. Supp. 1567, 1574 (M.D. Tenn. 1984).

[49] National Cooperative Production Amendments of 1993, Pub. L. No. 103-42, § 3(c)(5), 107 Stat. 117 (1993) (codified as amended at 15 U.S.C. § 4301(a)(6) (1994)).

(b) The term "joint venture" excludes the following activities involving two or more persons:

(1) exchanging information among competitors relating to costs, sales, profitability, prices, marketing, or distribution of any product, process, or service if such information is not reasonably required to carry out the purpose of such venture,

(2) entering into any agreement or engaging in any other conduct restricting, requiring, or otherwise involving the marketing, distribution, or provision by any person who is a party to such venture of any product, process, or service, other than—

(A) the distribution among the parties to such venture, in accordance with such venture, of a product, process, or service produced by such venture,

(B) the marketing of proprietary information, such as patents and trade secrets, developed through such venture formed under a written agreement entered into before the date of the enactment of the National Cooperative Production Amendments of 1993, or

(C) the licensing, conveying, or transferring of intellectual property, such as patents and trade secrets, developed through such venture formed under a written agreement entered into on or after the date of the enactment of the National Cooperative Production Amendments of 1993,

(3) entering into any agreement or engaging in any other conduct—

(A) to restrict or require the sale, licensing, or sharing of inventions, developments, products, processes, or services not developed through, or produced by, such venture, or

(B) to restrict or require participation by any person who is a party to such venture in other research and development activities,

that is not reasonably required to prevent misappropriation of proprietary information contributed by any person who is a party to such venture or of the results of such venture,

(4) entering into any agreement or engaging in any other conduct allocating a market with a competitor,

(5) exchanging information among competitors relating to production (other than production by such venture) of a product, process, or service if such information is not reasonably required to carry out the purpose of such venture,

(6) entering into any agreement or engaging in any other conduct restricting, requiring, or otherwise involving the production (other than the production by such venture) of a product, process, or service,

(7) using existing facilities for the production of a product, process, or service by such venture unless such use involves the production of a new product or technology, and

(8) except as provided in paragraphs (2), (3), and (6), entering into any agreement or engaging in any other conduct to restrict or require participation by any person who is a party to such venture, in any unilateral or joint activity that is not reasonably required to carry out the purpose of such venture.[50]

B. Benefits of NCRPA Protection

The Act provides two coveted protections for potential joint ventures. It provides for rule of reason treatment and limits damages for those ventures that qualify.

1. *Rule of Reason Protection*

Section 4302 of the Act provides certainty for joint ventures that fall within its definition of protected arrangements:

> the conduct of any person in making or performing a contract to carry out a joint venture shall not be deemed illegal per se; such conduct shall be judged on the basis of its reasonableness, taking into account all relevant factors affecting competition, including, but not limited to, effects on competition in properly defined, relevant research, development, product, process, and service markets.[51]

Note that the Act does not provide antitrust immunity to these joint ventures. Nor does it change the legal standards used to determine if a joint venture violates the rule of reason. Instead, the Act simply prescribes that joint ventures that adhere to the Act's mandates and fall within its definition of an R&D or production joint venture will be rewarded with rule of reason treatment.

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50 *Id.* § 3(c) (codified as amended at 15 U.S.C. § 4301(b)).

51 15 U.S.C. § 4302 (1994).

2. Limitation of Damages

Prior to the 1993 amendments to the old Act, joint ventures were subject to treble damages if their actions violated antitrust law. The 1993 Act limits this monetary exposure to actual damages, court costs, and attorney's fees.[52] But in order to receive this protection joint ventures must comply with certain requirements:

1) An agent of the joint venture must file notice with the Attorney General and the FTC disclosing:
   b) The natures and objective of the venture, and
   c) An update of any change in the venture's membership.[53]
2) The plaintiff's claim must result from "conduct that is within the scope of [the] notification that has been filed under section 4305(a) [*supra*] . . . ."[54]

The rules do not end here. There are more stringent requirements imposed on production joint ventures. To benefit from the limitation of damages provision, a joint production venture must locate its principal production facilities in the United States or its territories.[55] Additionally, each member of the venture must be a United States citizen or a citizen of a country that provides no less favorable antitrust treatment to United States citizens than it does to its own.[56] The legislative history is clear that the foreign law to which the Act refers is not merely its antitrust laws, but "all international agreements and other binding obligations to which that country and the United States are parties."[57]

V. IS THE NCPRA TOO LENIENT?

One view is that the Act grants complete immunity to any venture that can be characterized as an R&D or production joint venture.[58] Indeed, some go as far as to say that the new Act actually invites cartelism.[59]

From this standpoint it is merely the characterization of the venture that entitles it to the lenient standards of the Act. For

52 *See id.* § 4303.
53 *See id.* § 4305(a).
54 *Id.* § 4303(a)(1).
55 *See id.* § 4306(1).
56 *See id.* § 4306(2).
57 *See* H.R. Rep. No. 103-94, at 20 (1993).
58 *See* John A. Maher, *National Cooperative Production Amendments of 1993: Limited Cartelism Invited!*, 12 DICK. J. INT'L L. 195 (1994).
59 *See id.* at 195.

instance, facilities must only be used for the production of a "new product or technology" in order to fall within the Act's safe haven:[60]

> if a joint venturer's capital contribution is an existing plant for use in service of the venture, care must be exerted to insure [sic] that the plant is shifted to a "new product or technology." Alas, "new product or technology" is not a defined term of art . . . . Does a dramatically improved production floor lay-out constitute a "new . . . technology?"[61]

Following this view, enterprises fearing potential antitrust scrutiny must only comply with certain minimum standards. It seems that such subterfuge may be accomplished by doing any one of the following:

1. assigning significantly "new" tasks or utilize "new" technology in the production facilities of any venture;
2. forming the venture with an eye towards upgraded services or products; or
3. merging with another entity such that the facilities are used for "new" products.[62]

In this vein, nothing in the Act requires that the qualifying venture be a legal entity distinct from the participants themselves.[63] Nor is a venture disqualified from favorable treatment by reference to ownership percentages. As such, a commonly owned entity with 99% ownership by one and a mere percentage by another "seems technically adequate to achieve the NCRPA 'rule of reason standard . . . .'"[64] Should we read the Act's silence on this point to mean that a 99% non-qualifying entity coupled with a 1% qualifying entity eludes per se illegality? Indeed, such equity legerdemain can lead to the following scenario:

> [I]n the capital-intensive context, enterprises uncomfortable with substantive partners can limit partners to relative silence as investors in minute percentages of joint production ventures but nonetheless achieve full antitrust-minimizing benefits of [the] NCRPA. It is even possible to argue that commonly-controlled affiliates can joint venture to elude various antitrust norms.[65]

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60 *See* 15 U.S.C. § 4301(b)(7) (1994).
61 Maher, *supra* note 58, at 201.
62 *Id.* at 202.
63 *See* Maher, *supra* note 58, at 195, 202.
64 *See id.*
65 *Id.* at 198.

Section 4306(1) requires that a venture locate its principal production facilities in the United States to qualify for the damages limitation. But this does not require that the venture be headquartered in or otherwise tied to the United States. It is left to speculation how "principal" is defined and what distinguishes such facilities from incidental facilities.[66] Skeptics would ask if a venture qualified for rule of reason treatment if only one of multiple production facilities was located in the United States. This is even more troublesome when one considers that most enterprises have many facilities that may be wholly or partially independent.[67] How much, if any, of a partially owned subsidiary must be located in the United States?

There is an additional qualification imposed on members of the venture who are not American citizens. For these members, section 4306(2) requires that to qualify for the treble damages shield, the member's country must provide "antitrust treatment no less favorable to United States persons than to that country's domestic persons."[68] Are we to believe that this standard can adequately be determined by a federal judge hearing an antitrust case? While the DOJ has stated that the existence of a Treaty of Friendship, Commerce & Navigation, or similar agreement meets this standard, it seems such a requirement is too subjective to be exacting on a foreign member.[69] Concomitant to such subjectivity is that ventures can argue their case without immediate fear of per se illegality, thus opening the door to abuse. Such uncertainty might lead one to believe that in addition to situating its "incidental" facilities outside the United States, a venture avails itself of the Act's protection if its country's antitrust laws ostensibly provide beneficial treatment to United States persons.

Those believing that the Act actually invites anticompetitive behavior are quick to point out that joint venturers can take advantage of the Act's ambiguity.[70] None of the following terms is defined in the Act's definition section:[71] phenomena; observable fact; basic engineering technique; scientific or technical nature; model; process; production; product; service; etc. . . .

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66 *See id.* at 203.

67 *See id.*

68 *See* Maher, *supra* note 58, at 195, 207.

69 *See id.* at 207-08 (citing U.S. Dept. of Justice Press Release 93-177 (June 28, 1993)).

70 *See* Maher, *supra* note 58, at 209.

71 *See* 15 U.S.C § 4301 (1994).

Thus, it seems that just about any "combination of purposes"[72] in which a venture might want to engage is subject to only a qualified exclusion of activities as provided for in section 4301(b).[73] Such ambiguity and uncertainty allow potential ventures to proceed with a venture that should not otherwise fall within the Act's protective scope.

As one example of the breadth of the protected activities, note the scope of section 4301(a)(6)(F). The inclusion of "the collection, exchange, and analysis of research or production information" in the Act's safe haven is much too liberal. It seems to "include studies of not only [*sic*] customer preferences and procurement data, but also other factors of minimal, if any, particular scientific or production significance albeit susceptible of scientific collection and measurement techniques[.] Where to stop?"[74] Section 4301(b) fortunately excludes certain actions that ostensibly fall within the Act's protected purposes. But it still leaves something to be desired regarding its certainty.

This section contains several unconditional exclusions from the protection of the Act.[75] As one example, however, Congress clearly intended not to put a blanket exclusion on the exchange of data.[76] The Act does not impose any restrictions on the sharing of data between partners or between the venture to its investors. In light of the allowable exchange of data such that ventures can make sound economic and commercial decisions, at what point does prohibition effect the exchange of data for purely anticompetitive reasons?[77] Can venturers not simply cloak any data exchange such that it seems to fall within the ambit of the protection? This is merely one example of the potential abuse. Since other limiting exclusions are not unconditional, it follows that Congress intentionally left room to maneuver or it would have unconditionally excluded numerous other activities.[78]

VI. NOT SOFT ENOUGH

Others view the Act as mere window dressing and point out that nothing has changed. Between 1984 and 1990, the DOJ

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[72] *See id.* § 4301(a)(6)(G); *see* Maher, *supra* note 58, at 211.

[73] *See* Maher, *supra* note 58, at 210.

[74] *Id.*

[75] *See, e.g.*, 15 U.S.C. § 4301(b)(4) (1994).

[76] *See* Maher, *supra* note 58, at 212.

[77] *See id.* at 195, 212-213.

[78] *See id.*

and FTC challenged a total of only seven production joint ventures.[79] Historically, the courts, the DOJ, and the FTC alike have accorded very hospitable treatment to both R&D and production joint ventures. Thus, section 4302 merely requires the courts to apply a standard in evaluating qualified ventures that they have already been applying for some time.

Ostensibly, there is a standard by which joint ventures know they will be judged. However, Thomas Piraino has criticized the courts' inability to develop a "unified theory" by which cooperative arrangements among competitors will be viewed.[80] Piraino outlines the historical approach the courts have taken in their analysis of joint ventures:[81]

In 1979, in *Broadcast Music, Inc.*,[82] the Supreme Court used the rule of reason to analyze a group of composers' license fee arrangement. Several years later, the *Northwest Wholesaler*[83] and *NCAA*[84] Courts also used the rule of reason. However, in neither of these cases did the Court explain how to apply the rule of reason analysis and the circumstances in which it should be used. Recent cases, however, have seen the Court apply a per se approach to joint ventures (e.g., *Arigona Maricopa County Medical Society*[85] and *FTC v. Indiana Federation of Dentists*[86]).

Piraino posits that the courts have begun to look past the traditional approaches to viewing joint ventures and are synthesizing a new approach.[87] The next section of this paper addresses the possibility of Piraino's new unified approach that purports to lend certainty to the standard by which joint ventures are judged.

The case law provides joint venturers with the comfort of knowing that the rule of reason will generally be applied to those joint ventures with the potential for creating procompeti-

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79 *See* Donald K. Stockdale, Jr., *Antitrust and International Competitiveness: Is Encouraging Production Joint Ventures Worth the Cost?*, 7 HIGH TECH. L. J. 269, 294 (1992).

80 *See* Thomas A. Piraino, Jr., *Reconciling Competition and Cooperation: A New Antitrust Standard for Joint Ventures*, 35 WM. & MARY L. REV. 871 (1994).

81 *See id.* at 889-90.

82 *See supra* note 9.

83 *See supra* note 22.

84 *See supra* note 6.

85 *See id.*

86 476 U.S. 447, 466 (1989).

87 *See* Piraino, *supra* note 80, at 874.

tive efficiencies.[88] But the rule of reason also carries with it a significant amount of uncertainty:

i. The courts have typically spoken only in general terms regarding the factors they consider in rule of reason analysis;
ii. The use of "less restrictive alternative"[89] analysis raises the concern that courts might second-guess the judgments made by the venturers regarding the processes by which the venture would achieve efficiencies; and
iii. There has been little guidance from the Supreme Court on exactly how the courts are supposed to "balance" anticompetitive harms against the procompetitive efficiencies of a venture.[90]

In fact, there is no hard and fast set of criteria to which one may point for a venture to pass muster under the rule of reason.[91] The "weighing" by the courts of anticompetitive and beneficial effects of a joint venture under the rule of reason "tends to be more theoretical than real."[92] Some believe that, in reality, the courts simply "tend to find benefits (or efficiencies) where they see no harmful potential and to reject claimed benefits or efficiencies where they find anticompetitive potential."[93] Backing into such results does not lend itself to any amount of certainty.

The Act does little to prevent competitors from building a legal barrier to proposed ventures; damages provisions notwithstanding, the Act merely provides more lenient treatment to ventures and does not exempt them from liability. And, as noted, the more lenient standard in the form of the rule of reason treatment is subject to different interpretations. Where is the certainty? Does the Act actually lend itself to the predictability by which joint ventures will be judged? Such uncertainty will do little to encourage the formation of joint ventures in the United States—the purported goal of the Act.

Additionally, the Act's definition omits ancillary agreements.[94] Thus, it is likely that cooperative behavior attendant to a joint

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[88] *See supra* notes 6-28 and accompanying text.

[89] *See* United States v. Brown Univ., 5 F.3d 658, 679 (3d Cir. 1993); Bhan v. NME Hosps., Inc., 929 F.2d 1404, 1413 (9th Cir.), *cert. denied* 502 U.S. 994 (1991).

[90] *See* Alan H. Blankenheimer, *Structuring, Negotiating & Implementing Strategic Alliances 1998*, 1063 PLI/CORP 453, 460-63 (1998).

[91] *See* Jorde & Teece, *supra* note 3, at 40-49.

[92] *See* Joseph Kattan, *Antitrust Considerations in Innovation-Driven Markets*, 21 CAN.-U.S.L.J. 115, 124.

[93] *Id.*

[94] *See* 15 U.S.C. § 4301 (1994).

venture runs the risk of being deemed per se illegal. If this is the case, then the joint venture itself runs the same risk. Courts can easily circumvent the proscribed rule of reason treatment by finding any ancillary agreements in violation of antitrust laws. The NCPRA does little to protect joint ventures from this result.

While the new Act still leaves something to be desired, it is an improvement over the judicial treatment that joint ventures received prior to its enactment. Prior to the Act, ventures were judged pursuant to case law that granted a broad license to judges in the adoption of a standard of review.

VII. PROPOSALS FOR JOINT VENTURE TREATMENT

A. Piraino

Thomas Piraino proposes a method by which joint ventures can be analyzed that is compatible with case law:

> [I]nstead of the piecemeal approach taken to date, the federal courts need to adopt a unified method of analyzing all cooperative ventures among competitors. Until the courts are able to devise a general theory that reconciles the advantages of competition and cooperation, American firms will continue to be deterred from entering into efficiency-enhancing joint ventures.[95]

The apparent contradiction in the method by which the courts have recently analyzed joint ventures can be reconciled by looking at the degree to which the parties integrated their operations.[96]

Piraino's method posits that courts should focus on the extent to which the parties have combined their resources to accomplish their objective.[97] The greater degree to which the firms integrate, the greater is the potential for anticompetitive effects. Piraino concedes that some integration of capital, resources, and information is necessary to result in economies of scale, elimination of duplication, and risk reduction.[98] But he notes that the fulcrum upon which the competitive and anticompetitive effects of a joint venture rest is naturally the level of integration.[99]

The level of analysis given to a joint venture depends on the level of integration. In its simplest form, Piraino suggests that

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95 Piraino, *supra* note 80, at 880.

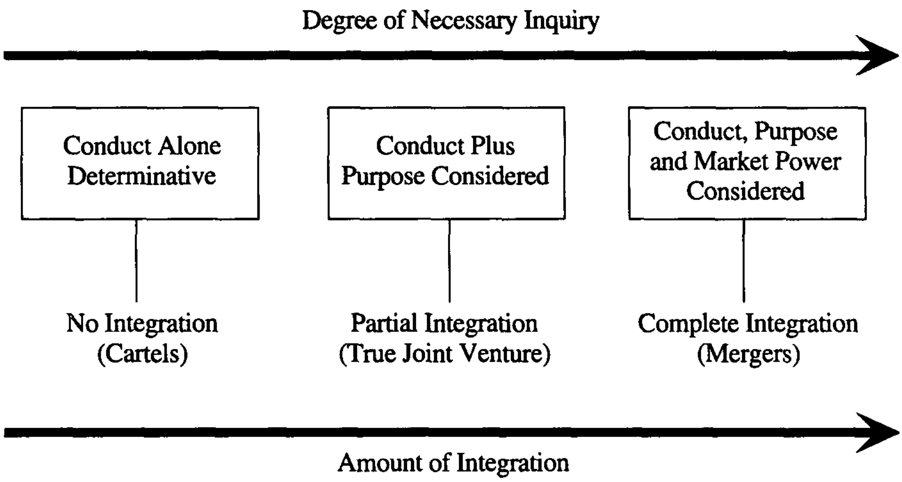
96 *See id.*

97 *See id.* at 895-96.

98 *See id.* at 896.

99 *See id.*

minimal inquiry is needed for unintegrated joint ventures, while integrated arrangements require a more detailed balancing. Since unintegrated ventures (read: cartels) are organized in simple forms that make their competitive and anticompetitive forms rather salient, a detailed inquiry is not necessary as the illegality should be obvious.[100] But ventures that are fully integrated are more complex such that their competitive effects may be somewhat obscured.[101] This requires a more detailed balancing of the potential benefits with the anticompetitive effects of the joint venture.[102] The amount of judicial analysis should thus increase with the level of integration of the venture. This relationship is depicted in the graph below:[103]



Piraino does an excellent job of translating his graphical relationship into a coherent model that can be followed by the courts. The most anticompetitive arrangement is a completely unintegrated venture. These require the least amount of judicial scrutiny because they do not combine the parties' operations, resources, or skill in any manner. The result is a naked price fixing agreement or other type of cartel. Because their only result is the stifling of competition, they should be deemed per se illegal.[104]

[100] *See id.* at 897.

[101] *See* Piraino, *supra* note 80, at 899.

[102] *See id.* at 897.

[103] Reproduced from *id.*

[104] *See id.* at 898.

Ventures with partially integrated resources require an increased amount of inquiry because they actually have the potential to increase efficiencies. Both R&D and production ventures fall within this category. These may result in benefits to competitors, yet they do not eliminate competition like a true merger.[105] As such, the venture's competitive purpose should be considered:

> [I]f the venture proposes to "achieve an efficiency [that] they could not have reached on their own, such as the creation of a new product or entry into a new market, courts should uphold the venture without any further balancing of its efficiencies and anticompetitive effects. . . . If, however, the parties intend to use a joint venture to enhance their efficiency in markets in which they already operate, the venture will have certain adverse effects. . . . [C]ompetition that formerly existed among the partners will be eliminated. In such a case the courts should balance such anticompetitive effects against the efficiencies that the venture is likely to generate.[106]

Finally, the greatest amount of inquiry is necessary when the arrangement results in a complete integration of the parties resources (read: merger).[107] Since all competition between the parties will be eliminated, courts must consider the parties' market power as well as their anticompetitive effects. Courts should determine the share of the relevant market and then balance the anticompetitive effects with the potential efficiencies of the venture.[108]

Unfortunately, or fortunately for those who believe that a picture is worth a thousand words, this translation results in yet another graph. Piraino's inquiry instructions may be shown in tabular form:[109]

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105 *See id.* at 898-99.

106 *Id.* at 898-899.

107 *See* Piraino, *supra* note 80, at 899.

108 *See id.*

109 Reproduced from *id.* at 897.

Type of Venture	No Integration	Partial Integration		Full Integration
		New Product	Existing Market	
Amount of Judicial Analysis	Conduct Only	Conduct + Purpose	Conduct + Purpose + Balancing	Conduct + Purpose + Balancing + Market Analysis

Piraino claims that courts would not have much trouble in placing joint ventures along his continuum.[110] While this is debatable, at least it would provide some amount of certainty for potential joint venturers. Naked price fixing agreements are easily identified. In *Timken Roller Bearing Co. v. United States*, for instance, the Supreme Court held that simply attaching a "joint venture" appellation to an agreement among competitors will not save it from condemnation as a per se unlawful agreement in restraint of trade where the only purpose and effect of the agreement is to suppress competition.[111] Likewise, mergers are easily identified by their complete integration of all resources such that any previous rivalry ceases.[112]

Joint venture purgatory obviously lies in the middle of the spectrum. It is here in Piraino's analysis that any previous amount of uncertainty is simply replaced by uncertainty in a different costume. Piraino claims that, at a minimum, to qualify as a partially integrated venture, arrangements should include joint functions that were "previously performed separately by the parties."[113] While distinguishing a bona fide joint venture from a cartel or merger is readily done, once done it is difficult to both determine the purpose of the venture and balance its effects.

Yet this is exactly what Piraino claims will simplify the inquiry into the legality of joint ventures producing new products. This "should be determined on the basis of the parties' competitive

110 *See id.* at 899.

111 341 U.S. 593, 598 (1951).

112 *See* Piraino, *supra* note 80, at 899.

113 *See id.* at 902.

purpose, rather than by a full market-based analysis."[114] While this may be easier to apply, it is by no means any more clear. Any venture can fabricate a purpose that purports to be valid. Indeed, "purpose" is too malleable a concept to be determinative of a venture's legality. A purpose can easily be palliated to look like an efficiency enhancing endeavor—yet Piraino claims that his "purpose-based standard effectively reveals the future competitive effects" of a venture.[115] While this purpose based standard simplifies the inquiry, it runs into problems nonetheless.

Joint ventures in existing markets restrict competition as well as produce efficiencies. For these types of ventures, simply considering the purpose is insufficient—the courts must balance the benefits of the venture with the potential anticompetitive effects.[116] This balancing that Piraino proposes is a curious restatement of the rule of reason as it has been stated in myriad cases.[117] Has Piraino not simply reinvented the wheel? His method does nothing to simplify the current analysis of joint ventures as it seemingly restates the garden variety rule of reason with which we are all familiar.

B. JORDE AND TEECE[118]

Thomas Jorde and David Teece are preeminent scholars in the area of antitrust law and economics.[119] Their proposal to alter the treatment of R&D and production joint ventures has spawned the introduction of legislation.[120] Because they believe that "[c]urrent U.S. antitrust law needlessly inhibits strategic alliances designed to develop and commercialize new technology,"[121] their proposal is modeled after the more lenient antitrust laws of both Europe and Japan. The proposal could also be implemented by the judicial system without legislation.

Their proposal seeks the following changes:

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114 *Id.* at 908.

115 *See id.* at 910.

116 *See id.* at 915-16.

117 *See* Piraino, *supra* note 80, at 880.

118 *See supra* notes 6-28 and accompanying text.

119 Thomas M. Jorde is a professor of law at the University of California, Berkeley. David J. Teece is a professor at the Walter A. Haas School of Business, University of California, Berkeley.

120 Legislation was introduced by Congressmen Rick Boucher (VA) and Tom Campbell (CA) in 1987—legislation based on their proposal has yet to be passed, however.

121 Jorde & Teece, *supra* note 3, at 36.

1. The adoption of a market-based safe harbor exempting ventures that involve less than 20-25% of the relevant market;
2. Altering the definition of the "market" in the context of innovation such that firms with "know-how" are included;
3. A clarification of the rule of reason;
4. Ending the partiality towards full mergers as opposed to contractual integrations or alliances; and
5. Limitation of damages to equitable relief only and attorney's fees.[122]

The proposal exempts qualifying joint ventures from all antitrust laws for a period of up to seventeen years.[123] Such ventures might be immune from repercussions for their harmful conduct as an injured plaintiff would have to receive permission from the Secretary of Commerce to institute proceedings against the venture.[124] A venture is not even subject to heightened scrutiny in order to receive such protection.

Indeed, the DOJ or FTC would have merely ninety days in which to conduct a study in order to grant an exemption.[125] This is odd since the proposal is based on the European model in which investigations have taken more than three years on several occasions.[126] A venture earns an exemption if it does not have substantial market power in some relevant market. Substantial market power means more than 20-25% of the market. Alternatively, substantial market power can be shown if the Herfindahl-Hirschmann Index[127] is greater than 1800 and increases by more than 50 as a result of the agreement.[128]

If the market power test seems reasonable, then the test for "relevant market" is just the opposite as it "includ[es] those firms presently competing and those who possess the potential and incentive to compete. [Admittedly, t]hese markets will almost always be global."[129] Firms with the know-how include non-producers that could sell the product and firms that could

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122 *See id.* at 61-62.

123 *See id.* at 104.

124 *See id.* at 102-03.

125 *See id.*

126 *See* Dana W. Hayter, *Scapegoat for the Trade Deficit: Does EEC Antitrust Treatment of Joint Ventures Place the United States at a Competitive Disadvantage?*, 16 HASTINGS INT'L & COMP. L. REV. 391, 403 (1993).

127 The Herfindahl-Hirschmann Index (HHI) is a measure of the concentration of the number and size of competitors in any given market. It is calculated by summing the squares of the market share of each participant.

128 *See* Jorde & Teece, *supra* note 3, at 63.

129 *Id.* at 65.

offer a new product through production alterations. Basically, the "relevant market" is so broad that any firm in the *world* that might *someday possibly* produce the product is included. This could not be defined any more liberally. It is somewhat ironic that the European counterpart that Jorde and Teece seek to emulate requires that a venture demonstrate economies of scale before being entitled to an exemption.

Nonexempt ventures are subject to a revamped rule of reason that makes a plaintiff's prima facie case extremely difficult. The defendant venture may rebut the plaintiff's prima facie case by showing 1) a lack of market power; 2) the existence of the potential for competition; 3) benefits to the consumer; or 4) efficiencies created by cooperation.[130]

Messrs. Jorde and Teece propose amendments to the current antitrust laws that would make it all but impossible for a plaintiff to challenge most cooperative agreements that might otherwise be found in violation of the Sherman Act. While their proposal is based on the system found in Europe and Japan, it provides far greater protection than what is available overseas. In fact, it is contrary to the antitrust laws in both Europe and Japan. Despite Messrs. Jorde and Teece's claim that "cooperative innovation arrangements [would] remain subject to the antitrust laws,"[131] their proposal creates a safe haven with more loopholes than the federal evidentiary hearsay rule.

VIII. IS THERE ACTUALLY A PROBLEM?

By no means is it a foregone conclusion that the United States does not lead the world in the development of new technologies. While some claim America's dominance in the global competition for innovation has vanished, there is no hard evidence pointing to this conclusion. From a purely economic point of view, R&D in the United States is second to none.

The law of supply and demand holds that only good products will survive in the marketplace. Excess demand will inflate the price of successful products, while poor products suffer the opposite fate. Foreign investors may be viewed as customers of American R&D—their investments in U.S. based R&D increased from $700 million in 1987 to more than $17 billion in 1995.[132]

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[130] *See id.* at 67-68.

[131] *See id.* at 88.

[132] *See* Richard Florida, *Other Countries' Money*, 101 TECH. REV., Mar.-Apr. 1998, at 29-30.

Foreign companies employ more than 100,000 Americans in R&D activities worldwide.[133] Clearly, this only occurs because foreign corporations wish to "gain access to cutting-edge scientists and engineers, and take advantage of the world's most creative and productive R&D climate."[134]

Assuming *arguendo* that the United States has fallen behind other global powerhouses, such as Japan and England, there are several possible reasons for the decline. One reason is that American companies are dissuaded from forming joint R&D and production ventures because of the harsh antitrust laws.

The NCRPA has successfully relaxed the antitrust treatment of R&D and production joint ventures. The prescribed rule of reason treatment has eliminated a qualifying venture's fear of per se illegality. Additionally, the elimination of treble damages will encourage the formation of cooperative ventures in the area of innovation. In that vein, however, "[t]here is no evidence that the . . . decline in the competitiveness of American business can be traced to the antitrust laws."[135] Until it has been shown beyond doubt that an even more lenient treatment of joint ventures will propel the United States to the forefront of the technical revolution, there need be no further changes in the law.

Further, Piraino does nothing to ameliorate the uncertainty—thus, no more firms will contemplate joint ventures under his policy than do under the status quo. While he has successfully identified a problem with the uncertainty of the laws, he does not propose an adequate solution. Similarly, while Jorde and Teece may solve some measure of uncertainty, they create another problem as they invite anticompetitive behavior.

Before solving a problem without an identifiable cause, however, one should consider the numerous other possible reasons for America's supposed R&D decline. The most glaring possibility is simply that the federal government has cut its funding for R&D and production endeavors. For instance, prior to 1980, the federal government was responsible for over 50% of R&D funding in the areas of computers and telecommunications. Since that time, that percentage has fallen to just over 30%.[136]

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133 *See id.* at 30.

134 *Id.*

135 Eisen, *supra* note 3, at 258; *see also* Joseph F. Brodley, *Antitrust Law and Innovation Cooperation*, 4 J. ECON. PERSP. 97, 100 (1990) (noting that "[a]ctual antitrust enforcement has not significantly prevented innovation collaboration").

136 *See Using R&D To Drive Growth*, INDUSTRY WK., Mar. 15, 1999, at 5, *available in* 1999 WL 9567464.

At the same time, however, foreign governments have increased their own funding for R&D.[137] American firms should not be expected to compete with foreign companies when the playing field is no longer level.

Accompanying the increase in foreign investment in R&D in their own countries is an increase in foreign based investment in American R&D efforts. As stated earlier, foreign entities are simply buying our technology. American companies must often agree to share technology or grant a license in return for foreign capital.[138] "Critics argue that [foreign owned laboratories] are merely skeleton research operations designed to monitor the American research scene—even pirate ideas developed here."[139] One estimate claims that foreign firms now account for one out of every five dollars spent in corporate R&D in the United states.[140] As one example, Japan invests three to four times the amount in the United States than it does in Asia each year.[141] This view supports the idea that American R&D efforts are world class—it is simply the results that end up elsewhere. Thus, the claim that foreigners are pirating American R&D and ideas is not without merit.

In addition to any claims that our fall from the lead in the innovation race can be blamed on monetary considerations, there are several potential non-monetary reasons. The first of these is that American companies focus on the wrong type of research.[142] The focus of American R&D efforts and that of the Japanese are just the opposite. American firms spend two thirds of their budget on basic scientific research as opposed to process technology.[143] In contrast, the Japanese invest approxi-

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[137] *See Technology Grant Program: Hearings Before the Subcomm. On Oversight of Gov't Management and the District of Columbia of the Senate Gov't Affairs Comm.* [hereinafter *Good*] (June 3, 1997) (statement of Dr. Mary Lowe Good, Under Secretary for Technology), *available in* 1997 WL 11233307. For example, the Japanese government will have doubled its science and technology budget for the five years ended 2000. *See id.*

[138] *See* Jack Robertson, *Yields on Joint Ventures*, ELECTRONIC NEWS, July 27, 1992, at 11, *available in* LEXIS, All Sources News, IAC No. 12440354.

[139] Florida, *supra* note 132, at 30.

[140] *See Good, supra* note 137, at 4.

[141] *See* Toshihiko Kinoshita, *U.S.-Japan-Asia: The Realities Behind the Trade Picture*, 4 ASIA PAC. ECON. REV. 2-3 (July 1, 1996), *available in* 1996 WL 11650302.

[142] *See generally*, M. Caravatti, *Why the U.S. Must Do More Process R&D*, 35 RES. TECH. MGMT. 8 (Sept.-Oct. 1992).

[143] *See* Steven C. Earl, *The Need for an American Industrial Policy*, 1993 BYU L. REV. 765, 784 (1993).

mately 70% of their R&D in process technology.[144] The result of this apparent disproportionate amount spent by Americans on product technology is our recent slide in the global market. Disproportionate amounts of R&D spent on product technology are costly because the market demands that companies place less emphasis on scientific breakthroughs and more on design, process and production technology, and systems engineering.[145]

Yet another purported reason for America's recent lack of success is our poor industrial and technology policy. Since we strive to compete in the global market, we must have an industrial policy that is on par with those of the nations against whom we compete. The most notable countries with superior industrial and technology policies are those of Europe and Japan. "Europe's Airbus Industrie is one example of how foreign industrial policies have hurt American competitors. This four-nation aircraft consortium [France, Germany, Spain, and the U.K.] 'has badly bruised McDonnell-Douglas and has become Boeing's main challenger thanks to an estimated $20 billion in aid from European governments.'"[146] Japan's Ministry of International Trade and Industry states that its mission is "to advance the well-being of the Japanese people through rapid economic growth."[147] This is a charge it seeks to accomplish by placing its industrial structure "in accordance with world markets and competitive forces driven by advancing technology."[148] America's lacking industrial/technological policy is seen as such a problem that without adequate measures "we will not only cease to establish the frontiers of knowledge, but we will be so far behind we won't even be players anymore."[149]

All of the aforementioned "causes" for America's poor recent innovation efforts seem to point to everyone but the companies engaged in these efforts. Do American businesses have clean hands? Maybe not. One view is that "the blame can certainly be laid on the complacency and inefficiency of American" firms.[150] Yet others claim that American companies have simply lost sight

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144 *See* Lewis M. Branscomb, *Does America Need a Technology Policy?*, HARV. BUS. REV., Mar.-Apr. 1992, at 24, 25.

145 *See id.* at 24-25.

146 Earl, *supra* note 143, at 768 (quoting Steven Greenhouse, *The Calls for an Industrial Policy Grow Louder*, N.Y. TIMES, July 19, 1992, § 3, at 5).

147 *Id.* at 767.

148 *Id.*

149 *Id.* at 768 (quoting Dr. Allen Bromley, former science advisor to President Bush).

150 *See* Earl, *supra* note 143, at 765.

of the forest for the trees. "[M]uch of American industry is abandoning basic research and frontier technology development in favor of near-term R&D to support product development."[151] This occurs because American firms are concerned with competition—both domestic and global. Strategic R&D decisions are "simply being made out of economic necessity."[152] American firms have chosen to sacrifice long term growth for near term success—firm managers are simply looking out for their own interest. Since their performance is judged on an annual basis, they have no incentive to worry about the future. As such, their decisions naturally have a short term focus—unfortunately R&D and production technology suffers as a result.

IX. POSSIBLE SOLUTIONS

A modification of America's antitrust laws and treatment of joint ventures is not needed to cure America's purported lack of innovation. A better solution might be a clarification of the rule of reason. The NCRPA provides an adequate safe haven for prospective ventures. Some argue that it is the concomitant uncertainty that dissuades cooperative agreements, not the antitrust laws per se. But any clarification of the rule of reason must not come at the expense of extracting the teeth of the antitrust laws.

However, one might point out that it is precisely the uncertainty of the rule of reason that encourages the formation of joint R&D and production ventures. The courts are saddled with the same uncertainty with which businesses are faced. Thus, a more appropriate term for "uncertainty" might be "flexibility." The flexibility of the antitrust laws therefore encourage the formation of joint ventures.[153] A clarification of the rule of reason that set hard and fast criteria would dissuade the formation of joint ventures that might otherwise have been created under the flexible status quo.

Several factors to which I have alluded earlier, which are seen to discourage joint venture formation, may now be seen as adding flexibility to encourage the formation of joint ventures.[154] For instance, it is to a prospective joint venture's benefit that

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[151] Mark Crawford, *MIT's Vest Sees Major Challenge to Research*, 9 NEW TECH. WK. 50, Dec. 18, 1995, *available in* 1999 WL 9015743.

[152] *See id.* at 2.

[153] *See* Eisen, *supra* note 3, at 261 (stating that "[t]he antitrust laws are remarkably flexible in permitting joint activity . . . [and that they] are not a large barrier to consortia formation").

[154] *See supra* note 7 and accompanying text.

courts only generalize regarding the factors they consider in their rule of reason analysis. A soft standard like this allows businesses to hedge on their creativity when forming a joint venture. The flexibility in the balancing of the anticompetitive and procompetitive effects allows for leniency in which efficiency achieving processes will pass rule of reason muster. The adoption of a strict balancing test by the courts would hinder joint venture formation.

Once again, one may point to other proposed solutions that would alleviate our ostensibly deficient recent R&D effort. The most basic of these solutions is for the federal government to increase its amount of funding for R&D and production efforts. If the claim is that America simply is not spending enough, an increase in R&D spending is the most obvious solution. Alternatively, if one believes that foreign companies are indeed pirating American ideas with their investment in American companies, we should limit the amount of foreign direct investment in American R&D efforts. Indeed, this is the solution if foreign companies are merely "skeleton operations designed to monitor and pirate American ideas."[155] Influential proponents of a restriction in foreign direct investment in American R&D efforts include Clyde Prestowitz, former member of the Reagan administration's Department of Commerce and current president of the Economic Strategy Institute in Washington.[156]

But restricting foreign investment will actually deteriorate the quality of American R&D. In light of the decreased level of federal funding and private sponsorship of American R&D, foreign investment enhances our science and technology.[157] Foreign owned laboratories produce patents at a greater rate than domestically owned ones.[158] Foreign investment also leads to increased numbers of reported findings in technology journals.[159] Therefore, a restriction of foreign investment would cut off a valuable source of American R&D investment and positive innovative externalities. Noting, then, how beneficial foreign investment is, America should take notice and increase its amount of investment abroad. "Cases of technology being imported from [abroad] are virtually non-existent."[160]

155 *See* Florida, *supra* note 132, at 34.

156 *See id.*

157 *See id.*

158 *See id.* (to be sure, foreign labs tend to focus on patent intensive activities).

159 *See id.*

160 Kinoshita, *supra* note 141, at 2.

Solutions closer to home include an increase in the number of public or private consortia and management/technology extension centers. Consortia of technology businesses enjoy the same benefits as joint R&D and production ventures regarding the elimination of the duplication of effort, shared risks, etc.[161] Consortia have the potential to help America compete in all industries, especially high technology.[162] As one example of a government sponsored consortium, Sematech[163] has made the semiconductor industry more efficient and has led to American companies' further increasing their market share.[164] With the goal of bringing semiconductor dominance back to the United States, several past and present affiliates of the consortium have increased efficiencies dramatically. For example, ATEQ introduced its laser mask writer a year sooner than expected, LAM Research decreased development costs by 35%, GCA Corp. increased the mean time between failure of one of its products more than fivefold, and NCR claims that Sematech helped it introduce manufacturing technology 9 to 12 months earlier than expected.[165] Robert Galvin, the former chairman and vice-chairman of the Sematech board, stated that "if Sematech had not been created . . . some American semiconductor producers that are now thriving would be out of business today."[166]

In addition to technology consortia, America should increase its number of management and technology extension centers. These centers, which are modeled after the "highly successful agricultural extension centers, [are to apply] the latest manufac-

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[161] *See* Piraino, *supra* note 80, at 886-887.

[162] *See* Earl, *supra* note 143, at 778.

[163] The Semiconductor Manufacturing Technology Consortium consists of the federal government and eleven semiconductor manufacturers. *See generally*, *Welcome to Sematch and International SEMATECH* (visited Aug. 29, 1999) <http://www.sematech.org/public/home.htm>.

[164] *See* Earl, *supra* note 143, at 780-82.

[165] *See id.* at 780 (citing Peter Burrows, *Bill Spencer Struggles to Reform Sematech*, ELECTRONIC BUS., May 18, 1992, at 57, 60). LAM Research, ATEQ, and GCA Corp. are equipment suppliers with which Sematech has entered into joint development arrangements for performance of specific projects. *See* e-mail from Bob Falstad, General Counsel and Secretary, Sematech, to Rob Pivnick, Special Projects Editor, SMU Law Review Association (Apr. 27, 1999) (on file with the *SMU Law Review Association*). Other members include Intel, AMD, Motorola, Lucent Technologies, and Texas Instruments. *See Corporate Information* (visited Aug. 29, 1999) <http://www.sematech.org/public/corporate/index.htm#memberlist>.

[166] Daniel Southerland, *Sematech's Critical Juncture: Hailed as Success, Chip Consortium Faces Budget Cuts*, WASH. POST, Aug. 28, 1992, at B1, B2.

turing and production technology."[167] The few centers that are in existence do not "advertise for fear of attracting too much business."[168] The nascent existence of American manufacturing/technology centers allows ample room for growth. The Japanese, for instance, spend over $470 million for 185 technology centers.[169] Even this amount is insignificant when compared to that spent domestically on the Agricultural Extension Service—$1.2 billion.[170]

However, in light of a lack of capital, large trade deficit, and unfavorable tax laws, many of these proposed solutions are more easily said than done. To encourage American R&D investment, our government must alter the "unfavorable laws relating to depreciation schedules and credits for investment."[171] As one comparative example, "[t]he Japanese are able to depreciate their high technology equipment investments in three years as opposed to five years for American companies. This makes investment much cheaper and therefore more attractive to Japanese companies."[172] Additionally, since technology is so dynamic, a three year depreciation schedule more accurately reflects the reality of the market.[173] An additional change should be made to the R&D tax credit. These minor changes should suffice to influence companies to increase their amount of investment in R&D projects.

X. CONCLUSION

One can point to any number of possible causes to America's purported lack of innovation. But the most oft cited cause, our antitrust laws, is merely a scapegoat for whatever the actual cause might be. Likewise, one can list innumerable solutions that might solve the problem. And while many of them appear like a proper response, none is the answer. Instead of the speculation that accompanies our purported deficient level of innovation, America must identify the real source of our suspect R&D and production technology.

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167 Earl, *supra* note 143, at 783.

168 OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, MAKING THINGS BETTER: COMPETING IN MANUFACTURING 183 (1990).

169 *See id.* at 18.

170 *See id.*

171 *See* Earl, *supra* note 143, at 790.

172 *Id.*

173 *See id.*

However, until it is proven that there is indeed a problem, the status quo need not be changed. Indeed, before identifying a cause or solution, one must identify a problem. To quote a timely adage: If it ain't broke, don't fix it.

Index

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