How to Block Cartel Formation and Price Fixing: Using Extraterritorial Application of the Antitrust Laws as a Deterrence Mechanism

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I. Introduction

In an age of increasing international commerce, it should come as no surprise that international cartels are on the upswing.[1] As competition

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1. As of 2003, there were approximately

> 50 sitting grand juries investigating suspected international cartel activity. International cartel investigations account for close to half of the Division's criminal investigations. The subjects and targets of the Division's international investigations are located on 6 continents and in nearly 25 different countries. However, the geographic scope of the criminal activity is even broader than these numbers reflect. Our investigations have uncovered meetings of international cartels in well over 100 cities in more than 35 countries, including most of the Far East and nearly every country in Western Europe.

James M. Griffin, Deputy Assistant Att'y Gen., U.S. Dep't of Justice, *The Modern Leniency Program After Ten Years: A Summary Overview of the Antitrust Division's Criminal Enforcement Program*, Presentation Before the American Bar Association Section of Antitrust Law Annual Meeting 8 (Aug. 12, 2003), *available at* http://www.usdoj.gov/atr/public/speeches/201477.htm; *see also* John M. Connor, *Global Antitrust Prosecutions of Modern International Cartels.* 4 J. INDUSTRY, COMPETITION, & TRADE 239 (2004) (documenting more than $10 billion in fines imposed by the world's antitrust authorities on about 150 international cartels prosecuted during 1990-2003).

becomes international in scope, so do the competitive pressures on businesses. One method of potentially eliminating the effects of competition upon business (providing products at cost and thereby diminishing profit) is to unite with one's competition, turning one's competitor into a friend and one's customer into an enemy.[2] The payoff is great, as a disciplined cartel that captures the world market for their profit can reap the rewards of a monopolist.[3] The penalties, while severe, are also quite limited: Outside of North America and Western Europe, few countries have effective anti-cartel enforcement, and only two, the United States and Canada, have traditions that allow private plaintiffs to bring antitrust suits for significant damages.[4] The result is a tremendous incentive to cartelize, with few penalties for doing so.

Since 1911, the United States has sought to extend the reaches of its antitrust laws to conduct beyond its borders that affected U.S. Commerce.[5] There is a significant policy goal at stake in going after conduct that is extraterritorial. Namely, by punishing cartelists for their conduct abroad, U.S. antitrust laws may reduce the payoffs for engaging in an international cartel.[6] Moreover, when the payoffs are substantial and the penalties meager, there remains a high risk of recidivism from cartelists found guilty of criminally violating U.S. antitrust laws.[7]

One component of reducing the payoffs using antitrust laws is the potential for consumers injured abroad by international cartel activity to

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2. *See, e.g.,* Videotape: Remarks by an ADM Executive at a Cartel Meeting (Mar. 10, 1994) (videotape on file with the U.S. Federal Bureau of Investigation) (ADM executive states "[t]he only thing we need to talk here because we are gonna get manipulated by these goddam buyers. . . . They can be smarter than us if we let them be smarter . . . they are not your friend. They are not my friend. . . . You're my friend. I wanna be closer to you than I am to any customer.").

3. For a survey of the economic literature, *see* Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?* 64 J. ECON. LIT. 43 (2006).

4. For a thorough discussion of some of the various antitrust regimes and the penalties they provide, *see* AMERICAN BAR ASSOCIATION, COMPETITION LAWS OUTSIDE THE UNITED STATES (2001) (discussing Australia, Brazil, Canada, Japan, Mexico, and the European Union and certain EU countries); *see also* Wolfgang Wurmrest, *Foreign Private Plaintiffs, Global Conspiracies, and the Extraterritorial Application of U.S. Antitrust Law*, 28 HASTINGS INT'L & COMP. L. REV. 205, 205 (2005) ("Outside the United States, private antitrust enforcement is either virtually non-existent or still in the fledging stages. Effective remedies for recovering antitrust injuries are rare, even in other industrialized countries where the task of enforcing antitrust law has often been vested in public authorities.").

5. *See* International Competition Policy Advisory Committee, Antitrust Division, Final Report to the Attorney General and Assistant Attorney General for Antitrust (2000), *available at* http://www.usdoj.gov/atr/icpac/finalreport.htm (noting that a British manufacturer was a defendant in the *United States v. American Tobacco* case); *see also* United States v. American Tobacco, Co. 221 U.S. 106, 171-72 (1911) (discussing Imperial Tobacco Company of Great Britain).

6. *See infra* Section IV.

7. *See id.*

obtain damages and injunctive relief in U.S. Courts. To some degree, courts have been willing to entertain such claims if there was some substantial relationship between the conduct alleged and domestic commerce.[8] However, the role of U.S. antitrust laws has dramatically changed due to a recent Supreme Court decision in *F. Hoffmann-La Roche Ltd. v. Empagran S.A.*,[9] effectively curtailing the ability of foreign plaintiffs to obtain relief in U.S. Courts.[10] In curtailing the role of private foreign plaintiffs in deterring international cartels, the Court's decision will have a profound impact upon cartel activity abroad and domestically.

This Article examines the nature of the effect of the Court's *Empagran* decision through the lens of the global vitamins cartel, using legal and economic analysis and also empirical data to describe the effect.[11] The Article commences with a discussion of the analytic approach adopted by the courts prior to the *Empagran* decision, with a focus on the issues of the degree to which effects on domestic commerce are necessary in order for U.S. courts to obtain jurisdiction over a matter involving foreign plaintiffs and the role of comity in the determination of jurisdiction. In Part III, the Article describes the *Empagran* story from a legal perspective, discussing the various positions taken by the lower courts and the United States Supreme Court, in the context of not only the issues of economic effects and comity, but also the role of foreign plaintiff private antitrust suits in deterring international cartels. Part IV of this Article examines the empirical evidence related to the vitamins cartel at the heart of the *Empagran* matter, describing empirical research done by Author Connor and others. This research suggests a fundamental and important link between a cartel's activity here and abroad, as well as the importance of domestic antitrust enforcement on cartel recidivism. Part V proposes a methodology that would harmonize the needs for vigorous antitrust enforcement to deter cartel activity and reduce recidivism with comity issues obviously at the forefront of the Court's concerns in *Empagran*.

8. *See* Ed Cavanaugh, *The FTAIA and Empagran: What Next?*, 58 S.M.U. L. REV. 1419 (2005) (describing standards under the Foreign Trade Antitrust Improvements Act).

9. F. Hoffmann-La Roche Ltd. v. Empagran S.A., 542 U.S. 155 (2004).

10. 542 U.S. at 169.

11. The most detailed analysis of the operation and prosecution of the vitamins cartels may be found in John M. Connor, *The Great Global Vitamins Conspiracy: Sanctions and Deterrence,* AAI Working Paper No. 06-02 (2006), *available at* http://ssrn.com/abstract=885968 [hereinafter *Great Global Vitamins*] (citing sources of data and methods of analysis); *see also The Great Global Price-Fixing Conspiracy: Sanctions and Deterrence*. 4 CONCURRENCES: REVUE DES DROITS DE LA CONCURRENCES 17 (2006) (containing a summary of this analysis).

II. Pre-*Empagran* Law: A Complicated Analytic Approach

A. Foundations

Extraterritoriality is a feature that arises from the language of the Sherman Act, which declares illegal all explicitly collusive pricing conduct that affects ". . . trade or commerce among the several states, or with foreign nations. . . ."[12] That is, price-fixing agreements that are carried out inside or outside United States' territory are illegal because they affect sales to buyers located in the United States. Without such a provision, U.S. price fixers could escape prosecution simply by chartering a boat and meeting twenty miles offshore. Moreover, cartels with antitrust exemptions, such as U.S. Webb-Pomerene export associations,[13] might be tempted to control domestic prices through their export activities. Similarly, collusion on exports to the United States would go unpunished were it not for the extraterritorial reach of the Sherman Act. However, until the Supreme Court ruled in the *Empagran* matter,[14] it was generally assumed that transactions wholly outside the U.S. market would not qualify for treble damages in private suits.[15] Thus, this principle of "partial" extraterritoriality is widely accepted as an essential feature for the effectiveness of antitrust laws, both in the U.S. and abroad; but how extensive this feature should be is the nub of the issue.[16]

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12. 15 U.S.C. § 1 (2006).

13. *See* 15 U.S.C. §§ 61-65 (2006). For an international survey of export cartels, *see* Margaret C. Levenstein & Valerie Y. Suslow, *The Changing International Status of Export Cartel Exemptions*, Ross School of Business Paper No. 897 (Nov. 10, 2004), *available at* http://ssrn.com/abstract=618201.

14. *See Empagran*, 542 U.S. at 155.

15. The language of the FTAIA made this somewhat clear. Under Section 6a of the FTAIA, the antitrust laws

> shall not apply to conduct involving trade or commerce (other than import trade or import commerce) with foreign nations unless
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> (1) such conduct has a direct, substantial, and reasonably foreseeable effect
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> (A) on trade or commerce which is not trade or commerce with foreign nations, or on import trade or import commerce with foreign nations; or
>
> (B) on export trade or export commerce with foreign nations, of a person engaged in such trade or commerce in the United States; and
>
> (2) such effect gives rise to a claim under the provisions of sections 1 to 7 of [the Sherman Act], other than this section.

15 U.S.C. § 6a.

16. *See* Andrew T. Guzman, *Is International Antitrust Possible?*, 73 N.Y.U. L. REV. 1501, 1528-29 (1998) (discussing partial extraterritoriality); Spencer Weber Waller, *The*

As a legal matter, there are two separate issues to be considered, one of subject-matter jurisdiction and one of standing in private antitrust suits.[17] The subject-matter issue in *Empagran* was whether the Foreign Trade Improvements Act (FTAIA),[18] a 1982 amendment to the Sherman Act, applies to "wholly foreign" direct purchases from a global cartel.[19] The FTAIA was intended to clarify what type of commerce is actionable under the antitrust laws. It authorizes the application of Section 1 of the Sherman Act when the defendant's conduct affects both domestic (U.S.) and foreign commerce *if* such conduct has "a direct, substantial, and reasonably foreseeable effect" on U.S. consumers, producers, or exporters.[20] The plaintiffs believed that the FTAIA's immunity did not apply to international cartels, only to export sales,[21] and that even if the law applies to the plaintiffs' purchases, the effects on U.S. commerce were direct, substantial, and foreseeable.[22]

The second issue in *Empagran* was whether the FTAIA extends the protection of U.S. courts to antitrust violations when the "foreign effect" is a cartelized price paid by a defendant on a transaction outside the United States.[23] This latter situation might be called "full extraterritoriality."[24] The plaintiffs in *Empagran* argued that full extraterritoriality will serve the purposes of the Sherman Act because (1) they are direct buyers clearly injured by the cartel's illegal conduct, (2) their claims will deter conduct that adversely affects U.S. commerce, and (3) their claims can be easily managed simultaneously with those of domestic direct buyers.[25]

Twilight of Comity, 38 COLUM. J. TRANSNAT'L L. 563, 574 (2000) (noting that other jurisdictions, including the European Union, have joined the "Extraterritorial Antitrust Game.").

17. *See* Brief for Respondents, F. Hoffmann-La Roche Ltd. v. Empagran S.A., 542 U.S. 155 (2004) (No. 03-724), 2004 WL 533935, at *i (March 15, 2004) [hereinafter Respondent's Brief]. *See also* Max Huffman, *A Standing Framework For Private Extraterritorial Antitrust Enforcement*, 60 SMU L. REV. 103 (2007).

18. 15 U.S.C. § 6a (2000). For an excellent discussion of the FTAIA, see Max Huffman, *A Retrospective on Twenty-Five Years of the Foreign Trade Antitrust Improvements Act*, 44 HOUS. L. REV. 285 (2007).

19. Brief for Respondents, *supra* note 17, at *34.

20. 15 U.S.C. § 6(a)(1); *see also* Ronald W. Davis, *U.S. Antitrust Treatment of International Cartels*, 17 ANTITRUST 31, 31-35 (2003) (surveying six appellate decisions in 2002-2003 in which the courts have attempted to clarify the FTAIA).

21. Brief for Respondents, *supra* note 17, at *5-9.

22. *Id.* at *8.

23. *Id.* at *3-4.

24. Guzman, *supra* note 16, at 1514 ("Full extraterritoriality" is synonymous to "wholly foreign.").

25. Brief for Respondents, *supra* note 17, at 4.

B. Subject Matter Jurisdiction

The issue of antitrust jurisdiction was first substantially raised in *United States v. Aluminum Co. of America [ALCOA]*.[26] In *ALCOA*, Judge Learned Hand ruled that American law would apply against foreign actors engaged in conduct abroad if the effect on commerce in the United States was substantial and foreseeable.[27] Or, as Judge Hand put it, "it is settled law . . . that any state may impose liabilities, even upon persons not within its allegiance, for conduct outside its borders that has consequences within its borders which the state reprehends; and these liabilities other states will ordinarily recognize."[28]

The Second Circuit placed important caveats upon the *ALCOA* test in *National Bank of Canada v. Interbank Card Association*.[29] National Bank was a Canadian bank challenging a nonassignment clause enforced by the two defendants, one being a U.S. "Master Charge" organization and the other being the Bank of Montreal, a Canadian firm. The obvious question was whether the effect, purported to be solely within the confines of Canada, was sufficient to trigger jurisdiction.[30]

The Court declined the invitation to assert jurisdiction.[31] The Court concluded that there was no effect on U.S. commerce.[32] More importantly, the Court questioned the scope of extraterritorial application of antitrust law, noting that

> Our jurisdiction is not supported by every conceivable repercussion of the action objected to on United States commerce. Only those injuries to United States commerce which reflect the anticompetitive effect either of the violation or of anticompetitive acts made possible by the violation constitute effects sufficient to confer jurisdiction . . . . [T]here must be at least some anticompetitive effects to meet the threshold requirement of jurisdiction.[33]

Thus, the jurisdictional requirement was such that some restrictive effect on U.S. commerce must have occurred from the restraint.

26. 148 F.2d 416 (2d Cir. 1945).
27. 148 F.2d. at 443-44.
28. *Id.* at 443.
29. 666 F.2d 6 (2d Cir. 1981).
30. *Id.* at 8-9.
31. *Id.*
32. "[W]e do not see that enforcement of the agreement posed a foreseeable threat to United States commerce of a type sufficient to justify assertion of jurisdiction. If we assume that the elimination of appellant as a bank in the credit card business would greatly increase the concentration of that business, and that the increased concentration would result in merchants having to pay higher fees on their accounts, the anticompetitive effect on United States commerce still does not appear." *Id.* at 9.
33. *Id.* at 8.

C. Comity

The *ALCOA* approach, along with its subsequent limiting jurisprudence, raised, and continues to raise, eyebrows in the international community. *ALCOA*, as a doctrine, fails to take into account any interests other than those of United States' consumers. The interests of other governments are not addressed.[34] Were they to be addressed, perhaps a balancing of competing interests would be in order; namely, the balancing of foreign governments' interests with those of U.S. consumers. And in situations where the former is substantial, those interests perhaps ought to trump those of American consumers. After all, foreign conduct affects not only U.S. consumers, but consumers abroad as well.

The doctrine of comity has been used to balance these competing interests and place a damper on the *ALCOA* jurisdictional analysis.[35] Naturally, the cases in this realm, pre-*Empagran*, tended to utilize a balancing test to determine whether the interests of the foreign government were greater than U.S. interests. For example, in *Timberlane Lumber Co. v. Bank of America*,[36] the Ninth Circuit outlined a number of factors to be utilized in determining whether comity interests weighed against enforcement of the antitrust laws. The court began by discussing how *ALCOA*, by itself, was insufficient to moderate against such considerations,[37] and as an alternative proposed a tripartite analysis involving jurisdiction, a precursory examination as to whether there is an antitrust injury, and the issue of comity.[38] With respect to this last issue, the Court sought to employ a multifactored analysis.[39]

34. Timberlane Lumber Co. v. Bank of America N.T. 549 F.2d 597, 614 (9th Cir. 1977).

35. K. BREWSTER, ANTITRUST AND AMERICAN BUSINESS ABROAD 446 (1958) (calling comity "jurisdictional rule of reason" analysis).

36. 549 F.2d 597 (9th Cir. 1976).

37. "The effects test by itself is incomplete because it fails to consider other nations' interests. Nor does it expressly take into account the full nature of the relationship between the actors and this country. Whether the alleged offender is an American citizen, for instance, may make a big difference; applying American laws to American citizens raises fewer problems than application to foreigners." 549 F.2d at 611-12.

38. *Id.* at 614.

39. "The elements to be weighed include the degree of conflict with foreign law or policy, the nationality or allegiance of the parties and the locations or principal places of businesses or corporations, the extent to which enforcement by either state can be expected to achieve compliance, the relative significance of effects on the United States as compared with those elsewhere, the extent to which there is explicit purpose to harm or affect American commerce, the foreseeability of such effect, and the relative importance to the violations charged of conduct within the United States as compared with conduct abroad." *Id.* at 614; *see also* RESTATEMENT (SECOND) OF FOREIGN RELATIONS LAW OF THE UNITED STATES § 40: (factors include vital national interests of each of the states, the extent and the nature of the hardship that inconsistent enforcement

The Third Circuit in *Mannington Mills, Inc. v. Congoleum Corp*.[40] similarly wrestled with the notion of comity. The case involved a U.S. company charging, in part, that its rival U.S. manufacturer of chemically embossed vinyl floor covering secured its foreign patents via fraud.[41] Plaintiff alleged that enforcement of the fraudulently obtained foreign patents created an anticompetitive effect against the export of Mannington and other U.S. manufacturers of vinyl floor covering.[42] The court noted: "This may, indeed, be a situation where the consequences to the American economy and policy permit no alternative to firm judicial action enforcing our antitrust laws abroad."[43] Under ideal circumstances, the court recommended that "before that step is taken, there should be a weighing of competing interests" under the comity doctrine.[44] However, because the matter was decided on pretrial motions, the record was inadequate to allow for such determinations.[45] Instead, the court realized that a complex litigation involving multiple countries required a country-by-country balancing of interests:

> [W]e do not believe that the extensive inquiry required must yield the same answer in each instance. The legislation and policy of each nation is not likely to be the same, nor is it probable that the effect upon commerce in each instance will be as substantial as others. Although the plaintiff would prefer to have the matter resolved as a unitary one, that cannot be done when the individual interests and policies of each of the foreign nations differ and must be balanced against our nation's legitimate interest in regulating anticompetitive activity.[46]

According to Professor Louis Schwartz, the *Timberlane* and *Mannington* decisions stand for the proposition that there are three components to an

actions would impose upon the person, the extent to which the required conduct is to take place in the territory of the other state, the nationality of the person, and the extent to which enforcement by action of either state can reasonably be expected to achieve compliance with the rule prescribed by that state.); BREWSTER, *supra* note 35 (factors include the relative significance to the violations charged of conduct within the United States as compared with conduct abroad; the extent to which there is explicit purpose to harm or affect American consumers or Americans' business opportunities; the relative seriousness of effects on the United States compared with those abroad; the nationality or allegiance of the parties or in the case of business associations, their corporate location, and the fairness of applying our law to them; (e) the degree of conflict with foreign laws and policies, and the extent to which conflict can be avoided without serious impairment of the interests of the United States or the foreign country.) *Id.* at 446.

40. 595 F.2d 1287 (3d Cir. 1979).
41. *Id.* at 1289.
42. *Id.* at 1290.
43. 595 F.2d. at 1297.
44. *Id.*
45. *Id.* at 1290.
46. *Id.* at 1298.

examination of multinational trade: (1) whether the activity has sufficient impact upon (2) balancing foreign interests with those of the United States and (3) determining whether the challenged conduct constitutes a restraint of trade.[47]

Such a multifactored analysis is problematic because it can give rise to the charge that the courts are not engaging in clear analysis capable of guiding business in its decision-making with respect to collaborative activity spanning national boundaries.[48] That charge, in part, led to the Foreign Trade Antitrust Improvements Act.[49]

D. Foreign Trade Antitrust Improvements Act

Adding to this already seemingly jumbled analysis is a final consideration, namely the Foreign Trade Antitrust Improvements Act (FTAIA) of 1982.[50] Firstly, as any Antitrust Act with the title

47. The authors are ineloquently paraphrasing L. Schwartz, *American Antitrust and Trading with State Controlled Economies*, 25 ANTITRUST BULL. 513 (1980). Professor Schwarz would add a separate item: "determining whether legitimate foreign concerns can be adequately accommodated through modulating relief rather than "abstention" under [the balancing of interests], at least absent any intervention by our Department of State to demonstrate that our foreign relations would be jeopardized by normal judicial operations." *Id.*

48. The Timberlane approach was adopted by the 10th Circuit in Montreal Trading Ltd. v. Amaz, Inc., 661 F.2d 864 (10th Cir. 1981). The procedural treatment of the issue varied by circuit as well. As the Antitrust Law Developments (5th ed. 2002) notes, a ruling as on issues of subject matter jurisdiction does not create a *res judicata* effect, while treating the issue as whether the conduct gives rise to a claim has such an effect. ANTITRUST LAW DEVELOPMENTS 1125 n.62 (5th ed. 2002). *Timberlane* makes this point as well. *See* 549 F.2d. at 601-02.

49. Foreign Trade Antitrust Improvement Act, 15 U.S.C. § 6a(1)-(2) (2000).

50. 15 U.S.C. § 6a (2000).

> Conduct involving trade or commerce with foreign nations
> Sections 1 to 7 of this title shall not apply to conduct involving trade or commerce (other than import trade or import commerce) with foreign nations unless—
>
> > (1) such conduct has a direct, substantial, and reasonably foreseeable effect—
> >
> > > (A) on trade or commerce which is not trade or commerce with foreign nations, or on import trade or import commerce with foreign nations; or
> > >
> > > (B) on export trade or export commerce with foreign nations, of a person engaged in such trade or commerce in the United States; and
> >
> > (2) such effect gives rise to a claim under the provisions of sections 1 to 7 of this title, other than this section.
>
> If sections 1 to 7 of this title apply to such conduct only because of the operation of paragraph (1)(B), then sections 1 to 7 of this title shall apply to such conduct only for injury to export business in the United States.

Id.

"improvements" suggests, the statute appears to have been designed to restrict and unify the ability of courts to extend the applicability of antitrust laws to foreign environments, though perhaps not to the degree specified by the Supreme Court in *Empagran*. Specifically, the legislative history speaks to providing businesses with reassurance that the antitrust laws would not be a barrier to joint exporting activity.[51] Secondly the legislation sought to address the issue that "courts differ in their expression of the proper test for determining whether United States Antitrust jurisdiction over international transactions exists."[52]

The statute states that the antitrust laws do not apply "to conduct involving trade or commerce (other than import trade or import commerce) with foreign nations" unless the conduct has a "direct, substantial, and reasonably foreseeable effect" on either (A) import trade or commerce or interstate trade or commerce or (B) "on export trade or export commerce with foreign nations, of a person engaged in such trade or commerce in the United States."[53] The test is clearly an attempt to reformulate the tripartite analysis previously employed by the courts into some uniform test for jurisdiction.

The direct, substantial, and reasonably foreseeable effect portion of the test, according to the legislative history, was designed to provide a single, "objective test . . . [to] serve as a simple and straightforward clarification of existing American law and the Department of Justice enforcement standards."[54] The test, as formulated by the legislative history, is "whether the effects would have been evident to a reasonable person making practical business judgments, not whether actual knowledge or intent can be shown."[55]

While the legislation and its history have been read as a restriction on the extraterritorial application of the antitrust laws, the legislative history suggests something rather more nuanced. While the legislative history makes clear that the legislation was not "intended to confer jurisdiction on injured foreign persons when that injury arose from conduct with no anticompetitive effects in the domestic marketplace . . .," the House Report is careful to explain that:

> This does not, however, mean that the impact of the illegal conduct must be experienced by the injured party within the United States. As previously set forth, it is sufficient that the conduct providing the basis of the claim has had the *requisite impact on the domestic or*

51. H.R. Rep. No. 97-686 at 5-7.
52. *See* H.R.Rep. No. 97-686, at 1 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2487, 2487-88.
53. 15 U.S.C. § 6a.
54. H.R.Rep. No. 97-686, *supra* note 52, at 2.
55. *Id.* at 9.

> *import commerce of the United States*, or, in the case of conduct lacking in such an impact, on an export opportunity of a person doing business in the United States.[56]

While it is beyond the scope of this Article to discuss the complete jurisprudence applying this approach, suffice it to say that the courts applying the FTAIA were divided on the meaning of the statute's provision regarding effect on commerce. This tension undoubtedly caused the Supreme Court to grant certiorari in *Empagran*.

The split in circuits, particularly between the Second and Fifth Circuits, reflects differing ideologies as to the scope of extraterritorial application of U.S. antitrust laws. The Fifth Circuit in *Den Norske Stats Oljeselskap As v. HeereMac Vof*[57] considered the question of extraterritorial restraints in the context of what appeared to be a wholly foreign restraint.[58] Plaintiff, a Norwegian operator of oil and drilling platforms in the North Sea, alleged a conspiracy by defendants, operators of heavy lift barges, to fix prices and allocate customers internationally.[59] The district court had dismissed plaintiff's claims because, while they were related to a world-wide conspiracy, the specific injury was isolated to the North Sea and out of U.S. jurisdiction, and thus lacked the requisite effect on U.S. commerce.[60] Plaintiffs had argued that the market allocation scheme had existed as an integrated whole, and thus the effects in one allocated market were related to the effects in another.[61]

The Fifth Circuit rejected the plaintiff's argument, noting that the "the FTAIA requires more than a 'close relationship' between the

56. *Id.* at 11-12 (emphasis added).

57. 241 F.3d 420 (5th Cir. 2001).

58. *Id.* at 428 ("we find that the plain language of the FTAIA precludes subject matter jurisdiction over claims by foreign plaintiffs against defendants where the situs of the injury is overseas and that injury arises from effects in a non-domestic market").

59. *Id.* at 422.

60. *Id*. at 424-25.

61. *Id.* at 425. Specifically:

> Statoil primarily argues that, because the defendants operating in the Gulf of Mexico were able to maintain their monopolistic pricing only because of their overall market allocation scheme (which included agreements regarding operations in the North Sea), Statoil's injury in the North Sea was a "necessary prerequisite to" and was "the quid pro quo for" the injury suffered in the United States domestic market. Statoil alleges that the market for heavy-lift services in the world is a single, unified, global market; therefore, because the United States is a part of this worldwide market, the effect of the conspiracy, whether in the United States or in the North Sea, "gives rise" to any claim that is based upon this conspiracy.

Id.

domestic injury and the plaintiff's claim; it demands that the domestic effect 'gives rise' to the claim."[62] In other words, the effect of the market allocation scheme in the North Sea was only *indirectly* related to the market allocation scheme as it existed in the U.S. But behind this tortured view of the economics of market allocation schemes is a more pragmatic rationale for rejecting plaintiff's claims: "Any reading of the FTAIA authorizing jurisdiction over Statoil's claims would open United States courts to global claims on a scale never intended by Congress."[63]

In contrast, the Second Circuit in *Kruman v. Christie's International PLC*[64] chose to allow plaintiff to pursue its case against international auction houses alleging that the auction houses fixed prices for auction services nationally and internationally.[65] The court here, like the Fifth Circuit, was concerned about the domestic effects of international cartels, but ruled that the jurisdiction was to be had:

> There is a distinction between anticompetitive conduct directed at foreign markets that only affects the competitiveness of foreign markets and anticompetitive conduct directed at foreign markets that directly affects the competitiveness of domestic markets. The antitrust laws apply to the latter sort of conduct and not the former. Our markets benefit when antitrust suits stop or deter any conduct that reduces competition in our markets regardless of where it occurs and whether it is also directed at foreign markets. On the other hand, our markets do not benefit when antitrust suits stop or deter anticompetitive conduct directed at foreign markets without an effect on our markets.[66]

The court rejected the notion that the injury for which an antitrust plaintiff seeks recovery must arise directly from the effect on domestic commerce.[67] The Second Circuit noted that the legislative history of the FTAIA cited approvingly to the Second Circuit's decision in *National Bank of Canada v. Interbank Card Association*.[68] In that decision, the Second Circuit employed a multifactored analysis focused upon the effects upon U.S. commerce: "Only those injuries to United States commerce which reflect the anticompetitive effect either of the violation or of anticompetitive acts made possible by the violation constitute effects sufficient to confer jurisdiction."[69] This essentially combined the

62. *Id.* at 427.
63. *Id.* at 431.
64. 284 F.3d. 384 (3d. Cir. 2002).
65. *Id.* at 390.
66. *Id.* at 394.
67. *Id.* at 400.
68. 666 F.2d 6, 8 (2d Cir.1981).
69. *Id.* at 8.

first two of the *Timberlane* factors.[70] The Second Circuit argued that analyzing those factors in a vacuum would "lead unwarrantedly to an assertion of jurisdiction whenever the challenged conduct is shown to have some effect on American foreign commerce, even though the actionable aspect of the restraint, the anticompetitive effect, is felt only within the foreign market in which the injured plaintiff seeks to compete."[71] Instead, the Second Circuit's analysis would focus upon "whether the challenged restraint has, or is intended to have, any anticompetitive effect upon United States commerce. . . ."[72]

The jurisdictional split between the Second Circuit's broader effects test and the Fifth Circuit's limited view of international conspiracies led the Supreme Court to grant jurisdiction in the *Empagran* case.[73] As will be discussed next, the Supreme Court's approach creates a jurisdictional requirement that quite narrowly defines the analysis by completely bifurcating the foreign and domestic effects of international conspiracies.

III. The *Empagran* Simplicity/Isolationist Approach

A. *The Empagran Story*

The *Empagran* story is one fairly common to international cartel cases.[74] The plaintiffs in this case were a group of foreign feed manufacturers and wholesalers that bought bulk vitamins in the 1990's. Their purchases occurred wholly outside the United States in countries that have no laws that permit private antitrust suits to recover damages from price-fixing conduct.[75] The defendants were companies that had been engaged in criminal international price-fixing of bulk vitamins and charged and convicted by the United States' Department of Justice (DOJ) and several other antitrust authorities outside the United States.[76]

70. *See supra* note 38 and accompanying text.

71. 666 F.2d at 8.

72. *Id.*

73. Empagran S.A. v. F. Hoffmann LaRoche, Ltd., 315 F.3d 338 (D.C. Cir. 2003).

74. JOHN CONNOR, GLOBAL PRICE FIXING (2d ed. 2007) [hereinafter GLOBAL PRICE FIXING] (showing similarities among the lysine, citric acid and vitamins cartels).

75. *See* Appellants' Response to the Appellees' Petition for Rehearing and Petition for Rehearing en Banc, *Empagran*, 315 F.3d 338, 2 (Mar. 24, 2003). Proctor & Gamble Co. and six of its foreign affiliates were originally among the plaintiffs, but their claims are being held in abeyance. There is also an Australian respondent; Australia does permit single-damages private suits, but it was only in late 2007 that the first such suit was concluded.

76. *See* Harry First, *The Vitamins Case: Cartel Prosecutions and the Coming of International Competition Law*. 68 ANTITRUST L. J. 711 (2001) (discussing the early U.S. prosecutions); *see also Great Global Vitamins*, *supra* note 11 (documenting fines levied on the cartels by the EU, Canada, Australia, and South Korea up through 2006).

Moreover, the defendants agreed to pay record amounts of compensation to thousands of U.S. buyers of vitamins, amounts stemming from private treble-damage actions under the Clayton Act.[77] Empagran sought to bring a private treble damage action against members of the cartel despite its status as a purchaser that was injured from purchases that were "wholly foreign."[78]

The district court phrased the question in a way that suggested the only answer was dismissal: "The critical question in this case is whether allegations of a global price fixing conspiracy that affects commerce both in the United States and in other countries gives persons injured abroad in transactions otherwise unconnected with the United States a remedy under our antitrust laws."[79]

The D.C. District Court dismissed the complaint for lack of subject matter jurisdiction.[80] The court noted that in order for plaintiffs to bring a successful antitrust action, they must allege not only a "direct, substantial, and reasonably foreseeable effect on U.S. commerce,"[81] but also that their injuries arise "from an anticompetitive effect of defendants' conduct on U.S. commerce."[82] Thus, the court concluded that it would have jurisdiction to redress injuries arising from overt acts within the United States that furthered the conspiracy,[83] because "those acts would both have occurred and have had effects" within the United States.[84] However, the court noted that the overt acts that caused plaintiff's injuries occurred outside the United States.[85] Thus, the court stated it only could "provide remedies for injuries suffered in consequence of overt acts that occurred outside this country only if those acts, either individually or perhaps collectively, had direct, substantial, and reasonably foreseeable effects here that caused the injuries to be remedied."[86] Moreover, given the fact that the plaintiffs were domestic or foreign purchasers who purchased the vitamins for delivery outside the United States, the court found that it lacked subject matter jurisdiction.[87]

77. 15 U.S.C. § 4 (2000).
78. Empagran S.A. v. F. Hoffman-La Roche, Ltd., 2001 WL 761360 at 4 (D.D.C. 2001).
79. *Id.* at 2.
80. *Id.* at *9.
81. *Id.* at 3-4 (quoting Kruman v. Christie's Int'l, 129 F.Supp.2d. 620, 625).
82. *Id.*
83. *Id.*
84. *Id.*
85. *Id.* at *5.
86. *Id.*
87. *Id.*

B. *The D.C. Circuit's "Literalist" Approach*

On appeal, the D.C. Circuit reversed.[88] Thinking it had successfully navigated the waters between the Scylla of the Second Circuit and the Charybdis of the Fifth, the court held:

> that, where the anticompetitive conduct has the requisite effect on United States commerce, FTAIA permits suits by foreign plaintiffs who are injured solely by that conduct's effect on foreign commerce. The anticompetitive conduct itself must violate the Sherman Act and the conduct's harmful effect on United States commerce must give rise to "a claim" by someone, even if not the foreign plaintiff who is before the court. Thus, the conduct's domestic effect must do more than give rise to a government action for violation of the Sherman Act, but it need not necessarily give rise to the particular plaintiff's (private) claim.[89]

Finding that plaintiffs had both met subject matter jurisdiction and the standing requirements of the FTAIA, the court proclaimed it had taken the "literalist" approach.[90] Specifically, the court held that FTAIA's requirement that the conduct "give rise to a claim" meant that *anyone's claim*, not merely the foreign plaintiff.[91] In other words, the test of effect on domestic commerce is whether anyone has standing to sue under the U.S. antitrust laws.[92]

C. *The Supreme Court's Isolationist Approach*

The specter of U.S. antitrust enforcement abroad made the granting of *certiorari* by the Supreme Court a hot antitrust topic. The case itself drew enormous attention around the world: The Supreme Court received nineteen amicus briefs in the *Empagran* appeal, seven foreign nations submitted four of these briefs, making the case that extending standing to foreign purchases would encourage forum shopping, undermine these countries' leniency programs, and be adverse to international comity.[93]

88. Empagran S.A. v. F. Hoffman-LaRoche, Ltd., 315 F.3d 338 (D.C. Cir. 2003).
89. *Id.* at 350.
90. *Id.*
91. *Id.* at 353.
92. *Id.* ("The same conduct injures both foreign plaintiffs and domestic plaintiffs, and is clearly the conduct that Congress aims to reach with our antitrust laws").
93. *See* Brief of the Governments of the Federal Republic of Germany and Belgium as Amici Curiae in Support of Petitioners (Feb. 03, 2004), *available at* 2004 WL 226388; Brief for the Government of Canada as Amicus Curiae Supporting Reversal (Feb. 03, 2004), *available at* 2004 WL 226389; Brief of the Government of Japan as Amicus Curiae in Support of Petitioners (Feb. 03, 2004), *available at* 2004 WL 226390; Brief of the United Kingdom of Great Britain and Northern Ireland, Ireland and the Kingdom of the Netherlands as Amici Curiae in Support of Petitioners (Feb. 03, 2004), *available at*

The U.S. government filed a brief arguing that its highly successful corporate leniency program would be imperiled by the increased private antitrust liability that leniency applicants would face should the plaintiffs prevail.[94] In addition, business organizations sponsored three other briefs in support of the defendants, arguing that a decision in favor of the plaintiffs would unnecessarily intrude into the free functioning of markets and would make life difficult for multinational corporations.[95]

However, academic legal scholars submitted five amicus briefs that opposed both the business groups' and Government's positions.[96] The tension between the rough consensus among academic amici is striking in itself, probably arising from concern in the academic literature about the scope of antitrust cartels, their grave potential for injury, and doubts about the adequacy of antitrust penalties to deter cartel formation.[97]

Apparently unphased by the academic amici support of plaintiffs, the Supreme Court took an isolationist approach to the issue of extraterritoriality. The first prong of the Court's approach was to exert the application of the FTAIA in light of comity principles typically applied to statutory interpretation.[98] The Court argued that the legislative history of the FTAIA was aimed not only at conduct involving exports, but also to any conduct involving foreign markets.[99]

2004 WL 226597.

94. *See* Brief for the United States as Amicus Curiae Supporting Petitioners, F. Hoffmann-LaRoche, et al., Petitioners v. Empagran et al., Respondents, et al., (February 3, 2004), *available at* 2004 WL 234125.

95. *See* Brief of the Chamber of Commerce of the United States and the Organization for International Investment as Amici Curiae in Support of Petitioner (Feb. 03, 2004), *available at* 2004 WL 220706; Brief for Amicus Curiae the Business Roundtable in Support of Petitioners (Jan. 30, 2004), *available at* 2004 WL 214307; Brief for Amicus Curiae the International Chamber of Commerce in Support of Petitioners (Feb. 03, 2004), *available at* 2004 WL 239505.

96. Notably, all five of the briefs submitted by academic amici were in support of the plaintiffs. *See* Brief of Certain Professors of Economics as Amici Curiae in Support of Respondents, F. Hoffmann-LaRoche, et al., Petitioners v. Empagran et al., Respondents, et al., (Mar. 15, 2004), *available at* 2004 WL 533930; Brief of Amici Curiae Legal Scholars in Support of Respondents (Mar. 15, 2004), *available at* 2004 WL 533931; Brief Amici Curiae of Professors Darren Bush, John M. Connor, John J. Flynn, Shubha Ghosh, Warren Grimes, Joseph E. Harrington, Jr., Norman Hawker, Robert Lande, William G. Shepherd and Steven Semeraro in Support of Respondents (Mar. 15, 2004), *available at* 2004 WL 53393; and Brief of Amici Curiae Economists Joseph E. Stiglitz and Peter R. Orszag in Support of Respondents (Mar. 15, 2004), *available at* 2004 WL 533934.

97. *See generally* Brief Amici Curiae of Professors Darren Bush, John M. Connor, John J. Flynn, Shubha Ghosh, Warren Grimes, Joseph E. Harrington, Jr., Norman Hawker, Robert Lande, William G. Shepherd and Steven Semeraro in Support of Respondents (Mar. 15, 2004), *available at* 2004 WL 53393.

98. F. Hoffmann-La Roche Ltd. v. Empagran S.A., 542 U.S. 155, 174 (2004).

99. The Court quoted the following legislative history for support:

The Court inexplicably directed almost all of its attention to the situation in which the effects in U.S. markets were *independent from the international effects*: "The price-fixing conduct significantly and adversely affects both customers outside the United States and customers within the United States, but the adverse foreign effect is independent of any adverse domestic effect."[100] As will be discussed, the linkage between the U.S. effects of international cartels and the international effects are direct, substantial, and in many cases, a necessity for the cartel to function.[101]

The Court proceeded to note the conflict between enforcement of U.S. antitrust laws and the ability of foreign governments to regulate their own commercial affairs.[102] The Court recognized that such a tension typically caused it to construe statutes to avoid unreasonable interference in the regulatory affairs of sovereign governments,[103] with an exception; namely, that allowing the "application of our antitrust laws to foreign anticompetitive conduct is nonetheless reasonable, and hence consistent with principles of prescriptive comity, insofar as they reflect a legislative effort to redress *domestic* antitrust injury that foreign anticompetitive conduct has caused."[104] The Court then raised a question it asked twice in the decision: "Why is it reasonable to apply this law to conduct that is significantly foreign *insofar as that conduct causes independent foreign harm and that foreign harm alone gives rise to the plaintiff's claim?*"[105] The Court claimed to find no good answer to this

> The Subcommittee's "export" commerce limitation appeared to make the amendments inapplicable to transactions that were neither import nor export, i.e., transactions within, between, or among other nations. . . . Such foreign transactions should, for the purposes of this legislation, be treated in the same manner as export transactions—that is, there should be no American antitrust jurisdiction absent a direct, substantial and reasonably foreseeable effect on domestic commerce or a domestic competitor. The Committee amendment therefore deletes references to "export" trade, and substitutes phrases such as "other than import" trade. It is thus clear that wholly foreign transactions as well as export transactions are covered by the amendment, but that import transactions are not.

542 U.S. at 163-64 (citing H.R.Rep. No. 97-686, *supra* note 52, at 9-10).

100. *Id.* at 164.

101. *See infra* section IV.

102. 542 U.S. at 164-65 ("This rule of statutory construction cautions courts to assume that legislators take account of the legitimate sovereign interests of other nations when they write American laws. It thereby helps the potentially conflicting laws of different nations work together in harmony-a harmony particularly needed in today's highly interdependent commercial world.").

103. *Id.* at 164.

104. *Id.* at 165 (emphasis in original).

105. *Id.*(emphasis in original).

question.[106]

In contrast, the Court found ample reasons as to why allowing extraterritorial suits is a bad idea. First, several countries weighed in against such application.[107] Second, the possibility of allowing a district court to determine which extraterritorial cases would merit allowing suit was "too complex to prove workable."[108] Thus, the principle of prescriptive comity "counseled against" enabling such antitrust suits.[109] As a practical matter, the Court's analysis does not require traditional exploration of comity principles at all, as the Court's view does not address any balancing of foreign and domestic interests.[110] Instead, it is solely focused upon the nexus of the injury and domestic commerce.[111] This may be a small component of traditional notions of comity, but this sliver swallows all other considerations in the *Empagran* court.

The second prong of the Court's analysis was that the legislative history of the FTAIA suggested Congress' desire to "clarify, perhaps to limit, but not *to expand* in any significant way, the Sherman Act's scope as applied to foreign commerce."[112] After making this statement, the Court proceeded to look for cases in which a court applied the antitrust laws in circumstances such as the case before it.

The Court found three.[113] However, all of the cited cases involved action by the United States, not a private plaintiff.[114] The Court felt that the United States Government had greater interest in protecting comity interests than other types of plaintiffs: "A Government plaintiff, unlike a private plaintiff, must seek to obtain the relief necessary to protect the public from further anticompetitive conduct and to redress anticompetitive harm. And a Government plaintiff has legal authority broad enough to allow it to carry out this mission."[115] Moreover, the Court suggested that the remedies in those cases, in contrast to the one

106. *Id.*
107. *Id.* at 156.
108. *Id.* at 168.
109. *Id.*
110. And Congress, under the FTAIA, did not require consideration of comity issues. *See* Waller, *supra* note 16, at 564 n.3 ("The United States Congress has never required the consideration of comity in the exercise of jurisdiction under any aspect of the antitrust laws despite numerous opportunities to do so. Moreover, the Congress has enacted numerous pieces of legislation operating on an extraterritorial basis without any incorporation of comity considerations.").
111. 542 U.S. at 169.
112. *Id.*
113. *See* Timken Roller Bearing Co. v. United States, 341 U.S. 593 (1951); United States v. National Lead Co., 332 U.S. 319 (1947); United States v. American Tobacco Co., 221 U.S. 106 (1911).
114. 542 U.S. at 170.
115. *Id.*

before it, were not seeking "to cure only independently caused foreign harm."[116] Additionally, the Court noted that in cases where lower courts have allowed private plaintiffs to proceed in international antitrust actions, the international harm to the plaintiffs *was interrelated to the domestic harm*.[117] As will be discussed, this was also the case in *Empagran*, although the Court did not find it to be patent.[118]

Finally, the Court rejected policy arguments based upon the deterrence value of extraterritorial application of the antitrust laws. Specifically, the Court stated that

> respondents point to policy considerations, namely, that application of the Sherman Act in present circumstances will (through increased deterrence) help protect Americans against foreign-caused anticompetitive injury. Petitioners, however, have made important experience-backed arguments (based upon amnesty-seeking incentives) to the contrary. We cannot say whether, on balance, respondents' side of this empirically based argument or the enforcement agencies' side is correct. But we can say that the answer to the dispute is neither clear enough, nor of such likely empirical significance, that it could overcome the considerations we have previously discussed and change our conclusion.[119]

The difficult question of deterrence, along with the Court's assumption that injury to competition caused by international cartels can be bifurcated between injuries affecting the United States and injuries affecting the rest of the world, will be addressed next.

IV. The Trouble with International Cartels

It is useful for purposes of examining the Court's assumptions and conclusions to examine the effects of international cartels. What follows is a legal and economic evaluation of the effect of cartels, with the hopes of communicating the fundamental relationships between the foreign and domestic effects of such cartels. As an example, the Authors rely upon the vitamins cartel that was the foundation of the *Empagran* decision.[120]

116. *Id.* at 171.

117. *See* Industria Siciliana Asfalti, Bitumi, S.P.A. v. Exxon Research & Engineering Co., No. 75 Civ. 5828-CSH, 1977 WL 1353 (S.D.N.Y., Jan.18, 1977); Dominicus Americana Bohio v. Gulf & Western Industries, Inc., 473 F.Supp. 680 (S.D.N.Y. 1979). A third case the Court cites, Hunt v. Mobil Oil Corp., 550 F.2d 68, 72 (2d Cir. 1977), was an Act of State doctrine case.

118. *See infra* Section IV.

119. 542 U.S. at 174-75.

120. To the extent that estimations, calculations, and other empirical techniques are deployed in this Section, they are entirely the work of author Connor relying upon data on file and that is available upon request. Other empirical studies are also cited.

A. The Vitamins Cartel, 1990-1999

The vitamins cartel was designed to raise the prices of vitamins A and E on the global market.[121] Decisions about raising the prices of these vitamins began in discussions in Switzerland and Germany among pharmaceutical manufacturers F. Hoffmann-LaRoche, BASF, and Rhône-Poulenc (now Sanofi-Aventis) in late 1989.[122] Soon afterward, the Japanese chemical manufacturer Eisai agreed with the other three firms to raise the price of vitamin E effective January 1990. It was logical for the conspirators to begin with vitamins A and E because they had the largest sales of the sixteen products that would eventually be cartelized.[123] These products were dominated by the four manufacturers (at least 87% of global supply), and were well protected from entry by new sellers because of the difficulty of the synthetic chemistry involved.[124] The number of cartelized products grew to eight by January 1991,[125] and by the end of 1991 at least twenty company groups would be involved in a conspiracy involving sixteen products.[126]

Apart from the products Vitamin H and C—for which price-fixing was effective for only four years—this was a durable conspiracy lasting ten to eleven years.[127] Price-fixing of vitamin H became ineffective in April 1994 after thirty months of operation,[128] and the cartel ceased price control of vitamin C shortly thereafter because cartel-inflated high prices

121. GLOBAL PRICE FIXING, *supra* note 74, at 280.

122. There are hints that an earlier cartel operated in Europe in 1980-1985. Information about the 1990-1999 cartel is drawn from published sources, including *Great Global Vitamins*, *supra* note 11; GLOBAL PRICE FIXING, *supra* note 74; John Connor, *"Our Customers Are Our Enemies:" The Lysine Cartel of 1992-1995*, 18 REV. IND. ORG. 5 (2001). This information is also supplemented by scores of publicly available official documents and press accounts. A particularly rich source of information is the European Commission's decision of November 21, 2001. *See* Commission Case COMP/E-1/37.512—Vitamins, Commission Decision (Nov. 21, 2001) [hereinafter EC Vitamins Case], *reprinted in* L-6 OFFICIAL J. EUR. COMMUNITIES 1 (10.1.2003), *available at* http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_006/l_00620030110en00010089.pdf.

123. GLOBAL PRICE FIXING, *supra* note 74, at 269.

124. The products ultimately involved were vitamins A, B1, B2, B3 (niacin), B4 (choline chloride), B5, B6, B9 (folic acid), B12, C, D3, and H (biotin); three carotinoids; and vitamin premixes. GLOBAL PRICE FIXING, *supra* note 74, at 277-79. The Department of Justice (DOJ), the Canadian Competition Bureau (CCB), and European Commission fined the defendants for violations with respect to different combinations of these sixteen products. GLOBAL PRICE FIXING, *supra* note 74, at 360-89. For example, only the DOJ fined firms for premixes, only the CBC for B12, and only the EC for D3; however all three entities prosecuted the makers of vitamins A, E, C, and many other vitamins GLOBAL PRICE FIXING, *supra* note 74, at 360-74, 383-89.

125. GLOBAL PRICE FIXING, *supra* note 74, at 277-78.

126. *Id.* at 278-79.

127. *Id.* at 316-22.

128. *Id.* at 304.

induced a flood of Chinese exports.[129] However, with respect to many products, the cartel was still effectively raising prices above non-collusive levels in February 1999 when definitive evidence of the conspiracy came into the hands of the DOJ from a company seeking amnesty in exchange for cooperation.[130]

Whether tracked in euros, U.S. dollars, or Swiss francs, market prices in the United States, Canada, and Western Europe began to rise almost immediately after the vitamins manufacturers announced higher list prices.[131] In the case of some products, prices peaked just before the cartel was exposed;[132] in others, prices peaked years before the cartel's ability to fix prices with respect to that product dissolved.[133] But in all cases, selling prices rose to levels greater than those observed prior to the collusive agreements and rose well above those observed after the agreements broke apart.[134] The price increases are only to a minor extent explained by either increases in production cost or by unexpected surges in demand.[135] The pattern of price changes in North America and Europe are remarkably parallel.[136] Prices in all other parts of the world linked by international trade were similarly affected although the average overcharges may have varied slightly from those observed in North America or Western Europe.[137]

Besides setting list prices and rigging bids on tenders from larger customers, the vitamin makers engaged in other collusive conduct that strengthened the conspiracy to fix prices.[138] They agreed on global and regional sales quotas that were generally based on pre-cartel levels.[139] They shared production and sales information to monitor their adherence to prices and market allocations.[140] They developed plans to thwart entry by producers outside the collusive groups.[141] They also set many common terms of sale, such as discounts, delivery, and restrictions on

129. *Id.* at 300-01.
130. *Id.* at 322.
131. *See* EC Vitamins Case, *supra* note 122, at 86-89; GLOBAL PRICE FIXING, *supra* note 74, at 280-317.
132. GLOBAL PRICE FIXING, *supra* note 74, at 327.
133. *Id.* at 325-26.
134. *Id.* at 332.
135. *Id.* at 329-31.
136. *Id.* at 325-28.
137. An official statement describing the price effects in South Korea, for example, which imports all its vitamin supplies, confirms the similarity in price effects. *The KFTC Imposes Surcharges on the International Cartel of Vitamin Companies*, Press Release (Apr. 25, 2003), *available at* http://ftc.go.kr/data/hwp/vitaminl.doc (last visited Apr. 25, 2006).
138. GLOBAL PRICE FIXING, *supra* note 74, at 305-17.
139. *Id.* at 280.
140. *Id.* at 315.
141. *Id.* at 316-17.

customer resale.[142]

The cartel was managed through three levels of managers; the lowest level had quarterly face-to-face meetings to adjust prices in several currencies.[143] The frequency of these meetings is instructive. Although with respect to each product the cartel had impressive coordination of total industry supply and market prices, it had a limited ability to affect changes in demand for vitamins and no power over currency exchange rates.[144] With few exceptions, the markets into which the vitamins cartel sold products had floating currency exchange rates that moved daily in response to changes in macroeconomic conditions.[145] Moreover, bulk vitamins were high priced, storable commodities that were usually shipped in large quantities over great distances.[146] International shipping costs for vitamins in the 1990's were well under 5% of the manufacturers' price.[147] Under such conditions, if changes in currency exchange rates were sharp enough, buyers would find it profitable to sell stored vitamins from countries with depreciated currencies to countries with appreciated currencies; prices in the latter areas would then fall below the cartel's preferred levels.[148] This is called

142. *Id.* at 280.

143. *Id.* at 314.

144. *Id* at 316.

145. *Id.* at 284.

146. The majority of the cartel's members had most of their vitamin factories in Europe and Japan, from which they exported the majority of the output to other continents. *Id.* at 248-51, 262-67, 272. The majority of U.S. consumption was satisfied by imports. *Id.* at 271. During the affected periods, vitamin A sold for $100-$200/lb., vitamin E for $60-$90/lb., vitamin C $30-$40/lb., and most of the other vitamins at prices in between. *Id.* at 325-28.

147. Europe-U.S. and Europe-Asia transportation costs for these products were less than $1/lb. These low oceanic transport rates can be inferred from data published by UNCTAD. *See* United Nations Conference on Trade and Development, *World Maritime Transport* 71 (1998) (showing that for all commodities the ratio of transport costs to import value was 5% in 1990 and 1995, and noting that most internationally traded goods are much lower in price than organic chemicals, which is what vitamins are). Other evidence of fungibility was supplied in exhibits submitted in the lysine trial. United States v. Andreas, 1999 WL 116218 (N.D. Ill. 1999).

In terms of its ability to enter international trade, lysine is very much like most bulk vitamins, powders that must be protected from humidity. *See* GLOBAL PRICE FIXING, *supra* note 74, at 206-08. Archer Daniels Midland spent only $0.10 to $0.13 per pound in transporting, storing, and merchandising lysine made in Illinois and shipped everywhere in the world at a time when lysine sold for merely $0.85 to $1.25 per pound. *Id.* at 207. Lysine international transfer costs were thus from 8% to 15% of sales value, yet the lysine-cartel managers expressed worries about geographic arbitrage. *Id.* at 198. The participants in the vitamin B5 and C cartels were likewise worried about and developed practices to thwart international geographic arbitrage. *Id.* at 316. Because vitamin prices were priced many times higher than lysine, and transport costs were similar, such costs were well under 1% of the internationally shipped prices of bulk vitamins.

148. GLOBAL PRICE FIXING, *supra* note 74, at 316.

"geographic arbitrage."[149]

Arbitrage undermines the ability of international cartels to set prices at the most profitable level in each currency zone and could even destroy collusive arrangements. For example, during 1990-1998 the value of the U.S. dollar relative to the Deutschmark varied by as much as 41%, and during 1991 alone the exchange rates changed by more than 25%[150] Consider what might happen if the vitamins cartel set the national prices of its vitamins only once each year. If the vitamins cartel set the price of vitamin E in Deutschmarks when this currency was weak against the dollar, a U.S. chemical wholesaler could make a quick and handsome profit by exporting the vitamin to Germany when the Deutschmark later strengthened.[151] The cartel would sell a greater amount of vitamins at a relatively low price in the United States but would lose the high priced sales in Germany to this entrepreneurial exporter. If sales diversions of this type became large enough, the total monopoly profits could decline to a level inadequate to compensate the cartel members for their risk from antitrust prosecution. It is for this reason that many cartels attempt to forbid the practice of reselling by their customers. But the only way cartelists can effectively prevent geographic arbitrage is to make it unprofitable by frequently resetting domestic cartel prices in all regions of the world using current exchange rates to ensure that prices remain close together.[152]

It is known from direct evidence that the vitamins and other comparable cartels were conscious of the problem presented by geographic arbitrage and took steps to prevent it.[153] For example, in early 1994, an internal memorandum was sent to Hoffmann-La Roche's sales managers informing them that currency exchange swings had cause U.S. prices of vitamins A and E to rise more than 10% above those in Europe.[154] To frustrate the actions of brokers engaging in arbitrage, sales

149. *See* Ronald Davis, *Empagran and International Cartels: A Comity of Errors*, 19 ANTITRUST 58 (2004) (discussing geographic arbitrage). It is noteworthy that all three of academic amici written by economists independently appealed to the notion that international cartels must combat geographic arbitrage if they are to maintain high prices in all regions where they operate.

150. *See, e.g.*, Onanda, *available at* http://www.oanda.com/convert/fxhistory.

151. In 1991, the Deutschmark was worth as little as $0.55 and appreciated to $0.69. *See id.* Even if transportation costs were a generous 5% of export costs, by timing its purchase and resale correctly, our hypothetical U.S. wholesaler could sell at a net increase in price of 20% and make a much higher mark-up on the export transaction than it would make in the U.S. market. If the dollar strengthened against the Mark, the incentive for a reverse diversion would occur.

152. By "close together" we mean that the prices in different regions for the same product range by less than 5% or 10% *when measured using a common currency*.

153. *See* GLOBAL PRICE FIXING, *supra* note 74, at 198, 284, 298, 312, 316.

154. *See id.* at 284.

managers were ordered to make raising European prices the principal goal for the year 1994.[155] Despite the increased danger of discovery, most modern cartels have had quarterly meetings to deal with this problem.[156] In its three years of operation, the well-documented lysine cartel had at least twenty-three face-to-face meetings in order to adjust local prices in various currencies whenever exchange movements got the cartel's prices out of line for maximum profitability.[157] During that cartel's first few months of operation, the price was set in U.S. dollars only.[158]

By the end of the cartel, prices were set in at least nine currencies.[159] A memorandum of a meeting of the cartel in Paris in 1993 written by an executive of the Ajinomoto Company specifically refers to the need to combat geographic arbitrage by non-cooperative wholesalers: "With the [Deutschmark] strong against the $, presently it is 22% higher than in the U.S. If the difference between Europe and the U.S. becomes bigger, ill-reputed dealers will start working and goods will enter Europe from the U.S. and decrease the price."[160] This document demonstrates the complex interrelationship between the domestic and foreign components of the restraint, including concerns about geographic arbitrage and its effect on price-decreasing entry.

B. Affected Sales of the Vitamins Cartel

Although the vitamins cartel is not different in kind from other international cartels of the late twentieth century,[161] it was one of exceptionally large scale. The most conventional measure of a cartel's size is "affected commerce," i.e., the sales revenues generated by the cartelized product during the price-fixing period.[162] The dates of

155. *Id.*
156. *Id.* at 316.
157. *Id.* at 198.
158. *Id.* at 202.
159. *Id.* at 203.
160. *See* United States v. Andreas, 1999 WL 116218 (N.D. Ill. 1999) (trial Exhibit 10-T, translation from Japanese).
161. By similar in kind, we mean that the methods of organizing and managing the conspiracies followed historical precedents of other international cartels, that duration was similar, and that the price increases were similar.
162. From Authors' experience in several cartel cases, affected sales are normally dated from the time at which the first agreement was made until the date of the cartel's last meeting. Another approach is to begin counting sales on the first date on which an agreed change in list or transaction prices were changed or became effective. In this Article, we follow the more conservative second approach. Both approaches undercount sales in the months following the formal dissolution of a cartel when prices remain elevated above what they would otherwise be in the absence of unlawful collusion because of institutional lags in price cuts.

effective price control by the vitamins cartel are well known.[163] Sales in the U.S., Canadian, and EU markets are also known with a fair degree of precision.[164] Sales in other parts of the world can be estimated as a residual amount after ascertaining the world totals.

DOJ officials once estimated the total affected sales in the United States to have been as low as $5 billion in public statements.[165] This figure appears to include only a few of the largest vitamins, whereas subsequent prosecutions make it clear that the cartel involved a wider array of vitamins and vitamin premixes and longer time periods than the DOJ's affected-sales concept.[166] A more reasonable estimate of U.S. affected sales of the full array of sixteen vitamin products is approximately $10 billion.[167]

The European Commission's published decision regarding the fines imposed on the vitamins cartel contains sales of vitamins in the European Economic Area.[168] The affected sales of bulk vitamins in the EEA are estimated to have been US $11 billion.[169] Affected sales in Canada were given in statements of the Canadian Competition Bureau to be US $680 million.[170] Finally, based upon reports of global sales, it is possible to estimate sales in the rest of the world (primarily Asia, Africa, and Latin America).[171] During the price-fixing period, sales of bulk vitamins in the rest of the world were approximately $13.7 billion.[172] Therefore, global affected commerce of bulk vitamins and premixes reached $36 billion—one of the largest amounts of affected commerce from a global price-fixing cartel.[173]

163. GLOBAL PRICE FIXING, *supra* note 74, at 324.

164. Sales data for vitamin premixes are difficult to obtain, and it is not always clear that total published or asserted sales data for all vitamins include premixes. Vitamin premixes are mixtures of bulk vitamins that are tailored for the nutritional needs of various types of farm animals. *Id.* at 268-71, 289. The United States and Canada were the only jurisdictions in which the vitamins manufacturers were sanctioned for price-fixing the market for premixes. *Id.*

165. *See U.S. Slaps Two Big European Companies with Huge Fines in Vitamin Case*, Agence France Press, May 20, 1999 (quoting Assistant Attorney General Joel Klein).

166. GLOBAL PRICE FIXING, *supra* note 74, at 375.

167. *Id.* at 270 (containing sales data).

168. The European Economic Area (EEA) includes the EU and a few other countries that are members of the European Free Trade Area (EFTA) but that have not joined the EU; Norway is an example. The EFTA countries have agreed to allow the EC to enforce its competition laws in their national jurisdictions. *See* C. HARDING AND JULIAN JOSHUA, REGULATING CARTELS IN EUROPE: A STUDY OF LEGAL CONTROL OF CORPORATE DELINQUENCY 93 (2003) [hereinafter REGULATING CARTELS IN EUROPE].

169. GLOBAL PRICE FIXING, *supra* note 74, at 270.

170. *Id.*

171. *See* GLOBAL PRICE FIXING, *supra* note 74, at 270.

172. *Id.* (the rest of the world is obtained by subtraction).

173. The largest collection of affected commerce data on post-1990 private international cartels can be found in John M. Connor and C. Gustav Helmers, *Statistics*

The significance of this sales calculation lies in the geographic location of vitamin sales during the cartel's active period. The three jurisdictions with the most effective antitrust enforcement—the USA, Canada, and the EU—accounted for only 60% of worldwide sales. Given that the rate of monopoly profits made by the cartelists was much higher in low-income importing countries,[174] *more than half* of those profits were made in jurisdictions where antitrust enforcement is weak or nonexistent.[175] The ability of international cartelists to garner monopoly profits in weak antitrust jurisdictions adversely affects the ability of all jurisdictions to deter such conduct, *even those with strong antitrust enforcement*.[176]

C. Economic Injuries Caused by the Vitamins Cartel

Government prosecutors have made many statements about the damages imposed on customers by the vitamins cartel. On May 20, 1999, the day the guilty pleas of the three largest members of the vitamins cartel were announced, Assistant Attorney General Joel Klein stated: "The vitamin cartel is the most pervasive and harmful criminal antitrust conspiracy ever uncovered. . . . The enormous effort that went into maintaining the conspiracy reflects the magnitude of the illegal revenues it generated. . . ."[177] Several subsequent statements by DOJ officials echoed the assertion that the vitamins cartel was the most injurious to the U.S. economy of any international price-fixing conspiracy ever prosecuted by the United States.[178]

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on Modern Private International Cartels, Working Paper No. 06-11 (2006), *available* at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=944039 [hereinafter *Statistics*]. Comparing cartel sales over long periods of time is difficult, and sales data for many cartels are impossible to estimate from publicly available information. Ranked by sales in real 2005 U.S. dollars, the vitamins cartel appears to be the third largest global cartel discovered since 1990. *Id.*

174. Clarke, Julian L. and Simon J. Evenett, *The Deterrent Effects of National Anticartel Laws: Evidence from the International Vitamins Cartel*, 48 ANTITRUST BULL. 289 (2003) (applying a quantitative trade model and showing that low-income countries that lack effective anticartel enforcement paid prices more than double other importers for vitamins).

175. *Id.*

176. *Id.*

177. "Press Conference with Attorney General Janet Reno and Joel Klein, Assistant Attorney General, Antitrust Division," FED. NEWS SERV., May 20, 1999.

178. *See, e.g.*, Testimony of Joel I. Klein, Assistant Attorney General, Department of Justice, before the House Judiciary Committee, Federal Document Clearinghouse Congressional Testimony (Apr. 11, 2000). The only other U.S. case contending for the most harmful cartel is the heavy electric power equipment conspiracy that was prosecuted in 1960-61, but it was a solely domestic cartel, and its price effects were relatively small. *See* John Connor and Robert H. Lande, *How High Do Cartels Raise Prices? Implications for Optimal Cartel Fines*, 80 TULANE L. REV. 513 (2005) [hereinafter *How High Do*

Economic historians Suslow and Levenstein in their survey of modern cartels cite North American overcharge figures of 20% and 30%.[179] In addition, economists and parties to private suits in the United States have conducted numerous analyses in which calculations of the economic injuries caused by vitamins price-fixing were central issues.[180] A substantial consensus emerges among these individuals that the vitamins cartel's price-fixing overcharges hovered around 30% on average.[181]

Prosecutors for the Canadian Ministry of Justice who handled the vitamins case were quoted in the press stating that vitamins prices charged by the cartel were 30% higher than competitive levels.[182] Similarly, the vitamins decision of the European Commission clearly demonstrates that the cartels caused a significant increase in EU prices of bulk vitamins.[183] Unlike the DOJ's terse press releases and sentencing memoranda, the EC Vitamin Decision is exemplary in providing numerous details about the operations, size, and European price effects of the vitamins cartel. From graphical evidence provided on the prices of seven vitamins, the prices in euros clearly rose significantly compared to the years before price-fixing began.[184] Moreover, the post-cartel prices are lower than the pre-cartel prices, a trend that suggests that costs of production probably fell during the relevant period.[185] Therefore, applying a simple before-and-after technique to calculate price effects will in all likelihood provide estimates that understate the true overcharge.[186] The sales-weighted mean price-fixing overcharge in the EU was 23% to 24% of affected sales.[187]

In a case involving one of the smaller vitamins called choline chloride (or vitamin B4), Mitsui and its affiliated companies were found guilty of price-fixing in a conspiracy that ended in 2003.[188] The jury found the injury to be $49.5 million and awarded treble damages.[189] This

Cartels Raise Prices?].

179. *How High Do Cartels Raise Prices?, supra* note 178, at App. Table 2.

180. GLOBAL PRICE FIXING, *supra* note 74, at 336-37.

181. *Id.* at 339.

182. *Id.* at 383.

183. *See* Commission Case COMP/E-1/37.512—Vitamins, Commission Decision (Nov. 21, 2001) (referring to the graphs of prices in the Annex); GLOBAL PRICE FIXING, *supra* note 74 (notice Figures 12.2-12.6).

184. GLOBAL PRICE FIXING, *supra* note 74, at 325-28.

185. *Id.*

186. *See* John M. Connor, Global Cartels Redux: The Amino Acid Lysine Antitrust Litigation, *in* J. Kwoka and L. White, The Antitrust Revolution 263-67 (4th Ed. 2004).

187. *See* GLOBAL PRICE FIXING, *supra* note 74, at 339.

188. The only U.S. trial of a corporate participant in the vitamins cartel is Animal Sciences, Inc. v. Chinook Group, Ltd., 2003 WL 22114272 (D.D.C. Oct. 14, 2003).

189. *See 4 Companies Found Liable In Price Fixing Of Vitamin B4*, N.Y. TIMES, June

overcharge conservatively represents 38% of affected sales.[190]

Academic economists and economic historians have conducted a number of empirical studies of the price effects of the vitamins cartel. Author Connor's estimates are that the global price effect was a sales-weighted average of about 28% of affected commerce.[191] Applying the U.S. overcharge rates to global sales results in an estimated world overcharge of $9 to $10 billion.[192] A sophisticated econometric model of world trade in bulk vitamins also yielded comparable conclusions about collusive price effects.[193] What is of special interest about this study is that the authors are able to calculate overcharges for the nineteen countries outside the EU and North America with the strictest antitrust laws separately from those countries with weak antitrust enforcement; the former had overcharges averaging 13% while the latter incurred a 33% overcharge.[194] Therefore, it seems likely that monopoly profit rates from collusion in the rest of the world are higher than in the United States, Canada, and the EU. Finally, a dynamic simulation model fitted to parameters drawn from the vitamin C industry predicted the U.S. price during fully collusive and non-collusive regimes.[195] One interpretation of the results is that U.S. vitamin C prices were 22% to 26% higher during the cartel period, which is quite remarkable given that this was one of the products with respect to which the cartel was weakest and most fragile.[196]

To summarize, the average worldwide price effects of the vitamins cartel appear to be close to 28%, with some regional differences. Applying these price effects to the affected sales implies that global injuries were about $9 to $10 billion, of which at least one-third and possibly as much as half accrued in parts of the world with poor antitrust enforcement.[197]

15, 2003, at A20.

190. *Id.*

191. GLOBAL PRICE FIXING, *supra* note 74, at 339.

192. *Id.* at 338 (this is a conservative approach, given that overcharge rates are higher in Africa, Asia, and Latin America); *see also* Douglas B. Bernheim, Expert Report of B. Douglas Bernheim, *In Re* Vitamins Antitrust Litigation, MDL No. 1285 (May 24, 2002) (D.C. 2002).

193. *See* Clarke & Evenett, *supra* note 174.

194. *Id.* at 720-21 (calculation by Author Connor from individual country estimates cited in Table 7).

195. *See* Nicolas de Roos, *Collusion with a Competitive Fringe: An Application to Vitamin C* 20-28 (Oct. 2001) (unpublished manuscript, *available at* http://www.econ.yale.edu/~njd7/docs/vitc.pdf.).

196. In a personal communication, Dr. de Roos described the method that Author Connor used as ". . . a comparison of two counterfactuals, i.e., the difference between a world described by my model with collusion, and a world described by my model without collusion." Correspondence with Dr. Nicolas de Roos (2006).

197. *See* GLOBAL PRICE FIXING, *supra* note 74, at 360-74, 383-391 (showing that

D. Corporate Cartel Sanctions

The vitamins cartel was the most harshly sanctioned conspiracy in antitrust history.[198] This section focuses on corporate monetary antitrust penalties, recognizing that cartelists might also be deterred in less measurable ways. For example, individual financial penalties, though small by comparison to corporate ones, and incarceration may add to or interact with corporate sanctions in discouraging the formation or enlargement of cartels. However, these disciplinary measures are difficult to incorporate into a unified calculus of collusive deterrence.

Sanctions imposed in the absence of the private antitrust enforcement denied in *Empagran* are inadequate to deter global price-fixing cartels. The U.S. Sentencing Guidelines, for example, call for a base fine of 20% of "affected sales" when an organization is being fined for price-fixing.[199] These may be adjusted by a multiplier as high as 4.0 depending upon the defendant's "culpability score."[200] In practice, most guilty international cartel participants earn culpability multipliers of from 1.5 to 4.0; that is, convicted corporations typically are liable for U.S. fines of 30% to 80% of their affected sales.[201] Unless global conduct is held unlawful as a matter of United States law, only *U.S. affected sales* will be used in calculating the base fine. Using *global* sales of the cartelized product of a guilty firm to determine a recommended fine could increase the maximum liability of typical international price fixers by a multiple of three to six.[202]

In discussing the economic effects of antitrust sanctions, it is essential to distinguish theoretically available legal sanctions ("maximum liability") from those actually applied as a matter of custom and policy. Historically, the government has ordinarily recommended substantial downward departures or discounts from maximum liability as

outside of the U.S., Canadian, and EU, government fines were miniscule).

198. *Statistics*, *supra* note 173, at 29.

199. *See* UNITED STATES SENTENCING GUIDELINES § 2R1.1(d) (2007).

200. *Id.* at 8C2.5, 8C2.6.

201. GLOBAL PRICE FIXING, *supra* note 74, at 78.

202. That is, the portion of global affected sales generated in the United States of most international cartels is from 16% to 33%. *Statistics*, *supra* note 173, at ii. While some statements of DOJ officials seem to imply that a firm's or a cartel's global sales could be used to figure the base fine, so far that power has been held in abeyance. Brief for the United States as Amicus Curiae Supporting Petitioners, Statoil v. Heeremac, 241 F.3d 420 (5th Cir. 2001). However, the DOJ has recommended upward adjustments in the multipliers for two cartels with small U.S. commerce and large global sales. *Id.* Note that EU fining practices permit fines as high as 10% of a firm's *global* sales in *all lines of business*, not just EU commerce in the cartelized product. GLOBAL PRICE FIXING, *supra* note 74, at 80-81.

specified by the Guidelines.[203] Members of modern international cartels have been granted very large discounts for minimal cooperation almost as a matter of course, driving actual U.S. fines down well below single U.S. damages in almost all cases.[204] In the vitamins case, the second through fifth firms to plead guilty were granted average downward departures of from 40% to 68% below the Guidelines' maximum fines.[205] As a result of U.S. sentencing practices, the DOJ's criminal fines amounted to less than 15% of the vitamins cartel's global monopoly profits.[206]

The EU has quite different standards for imposing its administrative fines, which are calculated on the basis of the seriousness and duration of the violation.[207] The European Commission (EC) is limited to imposing a maximum fine of 10% of a firm's global sales in the year prior to the Commission's action.[208] For a single-product firm with sales only in the EU, the maximum EU fine could be well below the profits accruing from even a brief, typically harmful cartel.[209] However, most members of global cartels are highly diversified multinational firms, so the 10% EU cap will generally not be binding.[210] As in the United States, generous reductions in fines are routinely granted for minimal cooperation with the EC.[211] Actual fines imposed by the EC for the vitamins cartel averaged 1.4% of EU damages.[212]

The Clayton Act appears to be unique among the world's antitrust statutes in permitting treble damages for direct purchases from effective

203. There is only one instance in which a defendant in a global cartel was required to pay a fine close to the maximum amount specified in the Guidelines: Mitsubishi after an adverse jury decision. DOJ Sentencing Memorandum, *available at* http://www.usdoj.gov/atr/cases/f8200/8205.htm.

204. GLOBAL PRICE FIXING, *supra* note 74, at 365-68.

205. *Statistics*, *supra* note 173, at 36 (showing that for 30 international cartels, U.S. fines averaged only 23% of U.S. overcharges). Note that to be conservative we cite the mean average from this study, whereas the lower median figures would be more appropriate.

206. *Id.* at 78-79 (mean of the ratios of real 2005 net present value of fines to real overcharges for ten vitamins).

207. Wouter P.J. Wils, *The European Commission's 2006 Guidelines on Antitrust Fines: A Legal and Economic Analysis*, 30 WORLD COMP. at 4-6 (2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=962654&high=%20wils.

208. *Id.*

209. *See How High Do Cartels Raise Prices?*, *supra* note 178, at 543 (showing that the median cartel mark-up is 25% and for international cartels 30-33%).

210. For example, for the leading member of the vitamins cartel, F. Hoffmann-LaRoche, vitamins accounted for merely 9% of its total sales. GLOBAL PRICE FIXING, *supra* note 74, at 263.

211. Wils, *supra* note 207, at 34.

212. *Statistics*, *supra* note 173, at 78-79 (mean of nine vitamins fines in 2005 net present value).

cartels.[213] Should plaintiffs be permitted to seek damages on wholly foreign cartel transactions, private recovery could in principle amount to 300% of global damages.[214] Clearly, the question of standing for companies like the *Empagran* plaintiffs can mightily affect the ability of private antitrust actions to deter international price fixing.

Because of various practical impediments, private plaintiffs have rarely, if ever, attained treble damages. Historically, in domestic U.S. price-fixing cases, direct purchasers have recouped on average less than single damages.[215] The recovery rate for U.S. buyers of 16 cartelized bulk vitamins averaged 90% of U.S. monopoly profits.[216] When one adds all government fines to private recoveries, total monetary penalties for the average vitamin cartel amounted to merely 15.5% of global damages.[217] However, if wholly foreign direct buyers were to be permitted to bring treble-damage suits in U.S. courts, recoveries at historical rates would push total private recoveries to 55% of global overcharges.[218] Combined with historical fines, these expanded rights to seek private damages would go far in correcting suboptimal deterrence.

In sum, the maximum financial antitrust liability that would face global cartels given the Supreme Court's ruling in *Empagran* would be, *de jure*, the sum of (1) five to six times the harm generated in the United States, (2) fines of approximately single U.S. damages in the European Union, and (3) negligible fines or penalties elsewhere.[219] As noted above, the injuries caused by global cartels spread beyond North

213. REGULATING CARTELS IN EUROPE, *supra* note 168, at 236-39.

214. *Id.*

215. *See* Robert H. Lande, *Are Antitrust 'Treble' Damages Really Single Damages?*, 54 OHIO STATE L. J. 115, 171 (1993). Recovery by indirect purchasers is available to residents of less than half of the States. *Id.* Settlement amounts in indirect purchaser suits against vitamins defendants are difficult to document because most terms are confidential, but are believed to be well under single damages in all cases, typically a small percentage of damages. *Id.* Indirect-purchaser suits of international cartels prosecuted by coalitions of state attorneys-general are of a similar order of magnitude. For example, in 2001 a coalition of state attorneys general negotiated a record $255 million settlement for sales to indirect purchasers with the six leading vitamins cartel defendants, less than 4% of global injuries. *See Ryan Announces Historic $255 Million Antitrust Settlements Against International Vitamin Cartel*, PR NEWSWIRE, Oct. 10, 2000.

216. *Statistics*, *supra* note 173, at 78-79 (mean of 16 vitamins' recoveries in 2005 net present value).

217. *Id.* (mean of 17 vitamins' penalties relative to damages, all in 2005 real net present value).

218. This 55% figure is the average nominal recovery of U.S. plaintiffs in all international cartels in the 1990-2003 sample in *Statistics*, *supra* note 173. The delay in payouts to plaintiffs compared to the dates the monopoly profits were accrued and the absence of prejudgment interest would reduce the recovery rate by about half. GLOBAL PRICE FIXING, *supra* note 74, at 426.

219. *Id.* at 425.

America and Western Europe.[220] Therefore, as a proportion of the monopoly profits garnered worldwide, the theoretical upper limit of lawful antitrust liability would be limited to approximately double global damages. *De facto* the application of fines and private suits to global cartels has resulted in total monetary sanctions that have been much less than double actual global damages in all cases and less than single damages on average.[221] In the end, then, even international cartels that are uncovered and prosecuted tend to be *ex post* profitable. However, when combined with low probabilities of being discovered, historical penalties offer woefully suboptimal deterrence when assessed from the more appropriate *ex ante* perspective.[222] As discussed below, one interpretation of the Sherman Act and extraterritoriality might allow deterrence to approach optimal levels.

E. The Vitamins Cartel's Monetary Penalties

The first source of monetary sanctions imposed upon the participants in the vitamins cartels were government fines, first imposed on the vitamins defendants by U.S. courts in a series of guilty pleas beginning in May 1999.[223] By 2002 a total of $915 million in criminal fines was collected.[224] Canada was next, with criminal fines of $83 million paid.[225] The EU imposed administrative fines of $759 million in 2001.[226] Australia ordered a fine of $14 million and South Korea $3 million.[227] Japan and Switzerland issued warnings to members of the cartel, but no fines.[228] No further major fines are expected to be imposed in this case.[229]

The second major source of sanctions is private actions by direct buyers, principally in the United States. Most U.S. federal class-action cases have been resolved, with a known total $704 million in recovery and legal fees and costs.[230] The biggest gap in our knowledge of the

220. *Id.* at 338.
221. *Id.* at 339.
222. A well known principle of optimal criminal deterrence is that an optimal monetary penalty is a cartel's *anticipated* monopoly overcharges divided by the probability of detection. RICHARD POSNER, ANTITRUST LAW 47 (2d ed. 2001) [hereinafter ANTITRUST LAW]. Because modern private cartels involve clandestine conduct, only a minor portion are detected and punished.
223. GLOBAL PRICE FIXING, *supra* note 74, at 371.
224. *Id.*
225. *Id.*
226. *Id.*
227. *Id.* at 389.
228. *Id.* at 390.
229. As of mid 2007, investigations in New Zealand, Brazil, and Mexico had not been resolved. *Id.* at 383-384.
230. *See In re Vitamins Antitrust Litigation*, MDL No. 1285 (May 24, 2002) (D.C.

amount of sanctions is the size of the settlements for opt-outs from the so-called domestic "all-vitamins" class action.[231] About 225 companies of the 4000 original class-action plaintiffs opted to litigate on their own.[232] As these opt-outs represented more than 75% of class purchases,[233] their settlements are substantial. Nevertheless, much information about the opt-outs' settlements has become public. Author Connor estimates the total payout to be in the range of $3.1 to $4.4 billion.[234] Indirect U.S. buyers recovered an estimated $516 to $541 million.[235] Similar civil actions were litigated in Australia and Canada; recoveries were $146 million.[236] In the EU and the rest of the world, civil liability is either impermissible or promises negligible recoveries for-price fixing violations.[237] While single damages are permitted in theory in a few European national courts, various practical impediments exist.[238] The total monetary penalties paid by the vitamins cartel has reached $6 to $7.5 billion.

To summarize this section, if wholly foreign sales like those at issue in *Empagran* are not unlawful as a matter of American law, so that the government must calculate base fines solely on the basis of domestic affected sales, then the maximum fine on international cartels by the United States, Canadian, and EU authorities will typically amount to far less than double the damage that the cartel causes in the United States. Civil liability is confined almost entirely to the U.S. court system and is unlikely to exceed double these U.S. damages. If an international cartel confined its sales solely to the U.S. market, its members might face the prospect of treble or quadruple damages, but few international cartels are configured this way.[239] Rather, sales and profits made in the U.S. market are typically less than one-third or one-fourth of the total. In such cases, fines and penalties in all jurisdictions will be less than global monopoly profits.

In the specific case of the vitamins cartel, the total antitrust fines

2002). Some minor vitamins were bifurcated from the main case.

231. *In re* Vitamins Antitrust Litigation, Misc. No. 99-197 (D.D.C. 2002).

232. *Great Global Vitamins*, *supra* note 11, at Table 18.

233. *Id.* at 405.

234. *Id.* at Table 18.

235. *Id.*

236. *Id.*

237. REGULATING CARTELS IN EUROPE, *supra* note 168, at 236-39.

238. Ashurst Consulting, Study on the Conditions of Claims for Damages in Case of Infringement of EC Competition Cules: Comparative Report (2004).

239. Only eighteen cases out of 167 modern international cartels were configured this way. John M. Connor, *Private International Cartels: Effectiveness, Welfare, and Anticartel Enforcement*, 115-20 (2003) (App. Table 3), *available at* http://ssrn.com/abstract=611909) [hereinafter *Private International Cartels*].

and penalties are estimated to be at most $7.5 billion.[240] But, as was shown above, the best estimates of the cartel's monopoly profits in all areas of the world are $9 to $10 billion.[241] Thus, the criminal and civil justice systems of the globe have failed to recover all of the cartel's illegal profits.[242]

F. The Vitamins Cartel is Typical

Most of the other international cartels discovered in the 1990's resemble the vitamins cartel in their operation, effectiveness, and sanctions imposed:

- Vitamins are organic chemicals; 49 of the 167 products that were the subject of price-fixing cartels that authorities uncovered between January 1990 and July 2003 were also in organic chemicals markets.
- The corporate vitamins conspirators were almost all manufacturers; the great majority of global cartelists are manufacturers.
- One-fourth of all international cartels sold to dispersed customers in the food and agricultural industries; half of the bulk vitamins ended up in animal feeds and one-quarter in processed foods.
- The typical international cartel made more than one-third of its revenues outside of North America and the EU; so did the vitamins cartel.
- The median number of companies forming international cartels was five; the median number of companies involved in the vitamins cartel with respect to each of the 16 products was three.
- More than 80% of international price fixers are headquartered in the EU or Japan; in vitamins it was 80%.
- International cartels rarely sell differentiated consumer products; vitamins are unique chemicals sold in bulk to other manufacturers.
- In common with all other cartels, the vitamins cartel needed

240. These penalties are nominal dollars recorded in the years 1999-2005 in which they were paid. *Statistics*, *supra* note 173, at 7. The cartel's collusive profits were garnered during 1989-1999, *i.e.,* centered on 1995. Thus, the cartel members had from five to nine years to invest these profits before they were disgorged. See the following note.

241. GLOBAL PRICE FIXING, *supra* note 74, at 338.

242. When one allows for the absence of prejudgement interest and for inflation, the real penalties shrink to less than one-third of real damages. *See* GLOBAL PRICE FIXING, *supra* note 74, at 427-30.

to combat the effects of international arbitrage when regional price differences became significant.

- The mean duration of the vitamins cartel with respect to each product was 69 months; for all global cartels, duration averaged 60 months.
- The global financial antitrust penalties imposed on the vitamins conspirators was about 72% of economic harm caused; for international cartels affecting 29 products, the mean was 55%.

The total financial antitrust penalties imposed on the vitamins conspirators was 12% to 16% of affected sales; the mean ratio for international cartels affecting 65 products was 12%.[243]

G. International Cartel Recidivism

Many corporate vitamins conspirators were fined previously for price-fixing violations under U.S. or EU competition law. F. Hoffmann-LaRoche, one of the two companies identified as the ringleaders of the vitamins cartel, engaged in overlapping price-fixing agreements with respect to 12 vitamin products.[244] Just two years before it was fined for its role in the vitamins cartel, Roche was fined $14 million by the United States in 1997 for its leading role in the citric acid cartel of 1991-1995.[245] Roche executives were obligated to provide full cooperation to the DOJ in antitrust matters by virtue of Roche's guilty plea in the citric acid case, yet the executives continued to conspire on vitamins prices for two more years. Moreover, there was trial testimony given in the 1998 case of *U.S. v. Andreas*[246] to the effect that F. Hoffman-LaRoche had been a member of an earlier clandestine international cartel in the citric acid market in the late 1980s.[247] This earlier citric acid conspiracy was never punished by any antitrust authorities.[248] Thus, there is credible evidence that Roche is a true recidivist in the most precise sense of the term.

Roche is not the only convicted member of the vitamins cartel to be fined for international price-fixing in another line of business. The large

243. *Private International Cartels*, *supra* note 239; *see also* 277-318 (containing comparable information about the vitamins cartels).
244. GLOBAL PRICE FIXING, *supra* note 74, at 278-79.
245. *Id.* at 357-59.
246. U.S. v. Andreas, 1999 WL 116218 (N.D. Ill. 1999).
247. GLOBAL PRICE FIXING, *supra* note 74, at 141.
248. Unrebutted testimony in the same trial also revealed that two of the Japanese members of the global lysine cartel had thrice previously formed both international and domestic U.S. cartels in the lysine market. John M. Connor, *Our Customers Are Our Enemies: The Lysine Cartel of 1992-1995*, 18 REV. IND. ORG. 5, 6-7 (2001). Thus, two of the five lysine defendants convicted by the United States in 1996 had by that time fixed prices of lysine on four separate occasions.

French chemical manufacturer Rhône-Poulenc, which in 1999 merged with the leading German chemical firm Höchst to form Aventis, was subsequently given amnesty in 1999 by the European Commission for its role in the global conspiracy in the market for the amino acid methionine.[249] Höchst itself, which conspired with respect to vitamin B12, was convicted and fined $36 million by the United States in 1998 for its role in the global sorbates cartel; in 2003 the EU imposed a fine of $116 million on Höchst (by then Aventis) for the sorbates violation.[250] Thus, three of the leading co-conspirators in the vitamins cartels are known to have fixed prices in previous or concurrent international cartels that operated in the 1990's. Doubtless there are other instances of repeated violations of the antitrust laws by other members of the vast vitamins cartel that have not been discovered or publicly reported.

These three examples drawn for the vitamins case are neither isolated nor merely anecdotal. The phenomenon of repeated violations of the antitrust laws of the United States and the European Union is one subject of a statistical study of modern private international cartels.[251] This research-collected information, believed to be reasonably complete, on participants in international cartels involving 283 products that were uncovered by one or more of the world's antitrust authorities between January 1990 and July 2003.[252] Out of the hundreds of companies identified as participants in these cartels, 173 companies participated in contemporary cartels with respect to two or more of these products.[253] Eleven companies are known to have participated in price-fixing cartels with respect to ten or more products.[254] Perhaps it is best to call such behavior serial price-fixing.

V. A Proposed Solution

Before proposing any test, it is important to outline first principles. As our working principle, we assert that an approach such as that taken by the D.C. Circuit in *Empagran* is necessary if the enforcement of American law is to have any realistic hope of protecting American consumers and the American economy by approaching optimal levels of deterrence with regard to anticompetitive behavior by international price-fixing cartels, especially those cartels that achieve global geographic

249. *Private International Cartels*, *supra* note 239, at Table A.1.
250. *Id.*
251. *Statistics*, *supra* note 173, at 58-59.
252. *Id.*
253. *Id.* (Some of these companies were also convicted or fined as members of purely domestic cartels or of international cartels that were active in periods prior to 1990). Thus, these data on repeated participation are undercounts.
254. *Id.*

dimensions.

Underlying this principle is the fact that so many companies engage in repeated violations of U.S. and EU competition laws.[255] The high level of recidivism is symptomatic of deeply rooted, profit-making business behavior.[256] The roots of this price-fixing misconduct lie in the structures of markets.[257] Common to all discovered cartels are "small numbers"—i.e., a high degree of industrial concentration of ownership among sellers—coupled with a high degree of control of the market by members of the cartel.[258] Similarly, cartels are more effective when buyers are many, and none purchases a large share of the cartelized product. A third nearly universal feature of markets with cartel activity is that the products are standardized commodities with few or no substitutes even when a cartel raises its price to a level well above normal. Storable products that are cheaply transported long distances make better candidates for internationally collusive schemes than perishable items.[259]

The vitamins cartel illustrates the importance of these market characteristics. Global market concentration was high: the top four or five firms accounted for more than 75% of production of each vitamin and 93% for the average of the 16 vitamins.[260] The cartel members comprised the top tier of manufacturers. More than ten thousand companies purchased bulk vitamins directly from the cartel. The biological functions of vitamins insured their uniqueness in demand. Additionally, high vitamin prices relative to transportation costs fostered long-distance trade.

Beyond these three characteristics are a number of market features that generally facilitate overt collusion but that might not be necessary conditions. Cartelized markets tend to be mature; growth tends to be steady and predictable; rapid changes in product design or in methods of

255. *See supra* Section IV.G.
256. *Id.*
257. *See, e.g.*, GLOBAL PRICE FIXING, *supra* note 74, at 32-42 (citing in footnote 13 eleven economic works as sources for these generalizations); *see also Private International Cartels*, *supra* note 239, at 8-11.
258. Somewhat larger numbers of participants are often found in bid-rigging schemes or in conventional price fixing aided by an industry trade association. Where such data are available, control of upwards of 60% of industry supply is almost always observed when cartels are formed.
259. The members of the lysine cartel for example were convicted for their price agreements in the dry lysine market. Liquid lysine, which sold for less than $0.50 per pound and could not be transported economically by tanker vehicles more than a few hundred miles from the plants in which it was made was not subject to direct price manipulation by the cartel. *See* GLOBAL PRICE FIXING, *supra* note 74, at 168, 444.
260. *See* GLOBAL PRICE FIXING, *supra* note 74, at 251-53.

manufacture tend to be things in the past.[261] Transactions are typically made through private bilateral negotiations that are not directly observable to third parties, and most sales are made by means of long-term supply contracts. Terms of sale—e.g., delivery services, quantity discounts, rebates, recognized grades, quality premiums, etc.—have long been standardized throughout the industry. Leading companies might have had years of predictable strategic interaction with one another, conduct that engenders levels of trust necessary for the smooth management of formal cartels. Barriers to entry are formidable, thus severely limiting the number of potential entrants should prices rise significantly. Again, the markets for bulk vitamins by and large display these facilitating factors.

Such a mix of market characteristics is found in only a minority of the world's industries. The structures and practices in the manufacturing and mining industries tend to facilitate cartelization, whereas the organization of retail sales of manufactures does not. Manufacturing of organic chemicals embodies them, while production of inorganic chemicals does not.

The import of these observations is that collusion is rational in some industries but foolhardy in others. By calling collusion "rational," economists intend to characterize cooperative business choices that are expected to generate greater profits than alternative strategies.[262] The field of legal economics that studies crime and punishment is founded on the idea that persons choose crime because the *anticipated benefits exceed the expected losses*. When the benefits (monopoly profits) exceed the losses (antitrust fines and penalties), deterrence will not be achieved.[263]

There are two major reasons why it is rational for firms contemplating global price-fixing to proceed. First, *actual* cartel profits have historically exceeded the financial penalties meted out by the

261. Cartel formation is frequently, perhaps usually preceded by an actual or impending "crisis" (as perceived by cartel members): markedly slowing growth, falling prices, rising inventories, low rates of capacity utilization or similar conditions that have caused or are about to cause profits to decline to what are by the standards of the industry historically low rates. *See* GLOBAL PRICE FIXING, *supra* note 74, at 446.

262. *See* ANTITRUST LAW, *supra* note 222, at 266-74. S*ee generally* M. Polinsky & S. Shavell, *The Economic Theory of Public Enforcement of the Law*, 38 J. ECON. LIT. 45 (2000).

263. When benefits and losses are equal, deterrence is said to be optimal. Optimal deterrence theory usually assumes that the government has no residual uncertainty and that would-be corporate criminals are risk-neutral. If a corporation is instead risk-avoiding, the optimal punishment level for the same level of anticipated benefits will be lower. Optimal deterrence is not absolute. In an optimal-deterrence regime, a trickle of unpunished collusive episodes will occur because the private and public costs of suppression are too great.

world's courts and commissions. It is reasonable to suppose that *future expectations* about the benefit/cost ratio of international price fixing will be tempered by historical experience. As this Article has demonstrated, the total collusive overcharges imposed by the vitamins cartel significantly exceeded the global fines and penalties extracted from the cartelists. This result follows from the leniency policies of the most active antitrust authorities, from the difficulties of plaintiffs in U.S. civil suits in achieving double or even single damages, from the absence of civil suits abroad, and from the near absence of any kind of enforcement outside North America and the EU.[264] The facts regarding antitrust sanctions presented above support a similar conclusion in the case of other global cartels uncovered since 1990.

Second, global cartelists have reason to expect that their secret price-fixing will probably remain hidden. The probability of being apprehended by one or more of the world's antitrust authorities is not known with certainty, but it is certainly less than 100%. The most reliable sources assert that the probability of any kind of private cartel being caught before the agreement is dissolved for other reasons is in the range of 10% to 33%.[265] It is true that most of these estimates date from periods before the full force of today's U.S. criminal sanctions and leniency inducements were felt.[266] Nevertheless, there is little reason to believe that the true probability of detection is outside this range.[267]

Even if corporate antitrust fines and penalties were to be applied in Europe and North America at their maximum levels, the low probability of detection alone will likely still result in suboptimal deterrence. When one also considers the application of leniency policies in the negotiation of fines, the absence of criminal enforcement outside of two continents,

264. *See Private International Cartels*, *supra* note 239, at 60. Of course some cartels are uncovered and sued only by private parties, but the reverse is by far the most common pattern. Once one antitrust authority is alerted to the existence of a cartel, these days the others will soon know.

265. The legal-economic literature on this point is scanty. Seven or eight sources are cited on the probability of cartel detection in *Private International Cartels, supra* note 239, at 62. The only empirical economic study finds a 13% to 17% discovery rate. *See* Bryant, Peter G. and E. Woodrow Eckard. *Price Fixing: The Probability of Getting Caught.* 73 REV. ECON. AND STAT. 531 (1991) (the most widely cited study on the subject). Even after detection, successful prosecution of objectively guilty international conspiracies is uncertain.

266. John M. Connor, *The Profitability of Price Fixing: Have Stronger Antitrust Sanctions Deterred?* 3 (paper delivered at the International Industrial Organization Conference Atlanta, Georgia, April 8-9, 2006) (replicates the Bryant an Eckard study cited in the previous footnote with a more current U.S. cartel sample and concludes that the probability of detection has not changed).

267. Polinsky and Shavell note that arrest rates for the most common felonious property crimes are between 13% and 17%. *See* Polinsky & Shavell, *supra* note 262, at 71 n.77.

and the inability of injured parties to seek civil .restitution outside of North America, the profitability of global price fixing is assured.

Thus, several linkages appear between injury in foreign markets and antitrust policy domestically. First, at the most basic level, international cartels must deal with the issue of geographic arbitrage, which requires the cartels constantly to harmonize prices in passive response to fluctuating exchange rates across markets.[268] This means that maintaining profitability in one jurisdiction necessarily hinges upon a careful balancing of cartel interests in another jurisdiction, including the United States.

A corollary to this point about the necessity of arbitrage is that the fixing of prices in the United States affects the cartel's success in other countries, and vice versa. The interdependence of the prices fixed by the cartel means that the conduct of the cartel impacts both domestic and import commerce, and limits export or import possibilities for firms within the United States. The interdependence of prices means, by definition, that the injury of a consumer in another country is directly and inherently linked to prices fixed in the United States.

Second, international cartels will tend to injure United States commerce repeatedly because the penalties for detection will always be exceeded by the benefits of cartel activity. The Supreme Court's isolationist policy in *Empagran* assures, in effect, that there will be repeated cartel behavior in some industries that will directly injure U.S. commerce, causing additional enforcement costs and consumer injury that might have been deterred had the Supreme Court adopted the D.C. Circuit's sophisticated understanding of the interrelationships between countries subject to international cartel behavior.

None of this is to say, however, that the finding of such an effect should always rule the day. There are perfectly legitimate reasons for precluding enforcement of the U.S. antitrust laws, even where there is a high degree of recidivism and consumer injury. Thus, interests of deterrence and mitigation of consumer injury must be weighed against other factors.

Our starting point is the FTAIA itself.[269] We adopt the D.C. Circuit's view of the FTAIA in that under the FTAIA, the

268. In making this point, this article makes three reasonable assumptions: that for "international cartels" of interest the cartelized product is internationally tradable and storable, that the cartel operates in two or more currency exchange zones, and that the cartel members have no market power over the markets that determine international currency exchange rates.

269. Actually, the starting point for any antitrust analysis should be whether the particular conduct is exempt from the antitrust laws. With respect to issues involving extraterritoriality, the doctrines of Act of State and Foreign Sovereign Compulsion would come into play before any analysis of jurisdiction.

anticompetitive conduct alleged must violate the Sherman Act and that the conduct must give rise to "a claim" by someone, meaning not necessarily the foreign plaintiff.[270] The sole purpose of this analysis is not to determine whether the foreign plaintiff has standing; but rather, to determine the existence and foreseeability of intent to harm or affect U.S. commerce.

The adoption of this approach meets our guiding principle of deterrence, an issue that is also discussed by the D.C. Circuit in *Empagran* as well as the Supreme Court, albeit not in *Empagran*. The D.C. Circuit noted that the Supreme Court has in its jurisdictional decisions noted the need for deterrent effect. In particular, the Supreme Court noted in *Pfizer, Inc. v. Government of India*,[271] that

> [i]f foreign plaintiffs were not permitted to seek a remedy for their antitrust injuries, persons doing business both in this country and abroad might be tempted to enter into anticompetitive conspiracies affecting American consumers in the expectation that the illegal profits they could safely extort abroad would offset any liability to plaintiffs at home. If, on the other hand, potential antitrust violators must take into account the full costs of their conduct, American consumers are benefitted by the maximum deterrent effect of treble damages upon all potential violators.[272]

The Court's statement is exactly correct, and is now borne out by empirical evidence as described above.[273]

270. Empagran S.A. v. F. Hoffman-LaRoche, Ltd. 315 F.3d 338, 360 (D.C. 2003).
271. 434 U.S. 308 (1978).
272. *Id.* at 314.
273. As Judge Higginbotham noted in his dissent in Den Norske Oljeselskap As v. HeereMac Vof, 241 F.3d 420 (2001):

> Conspirators facing antitrust liability only to plaintiffs injured by their conspiracy's effects on the United States may not be deterred from restraining trade in the United States. A worldwide price-fixing scheme could sustain monopoly prices in the United States even in the face of such liability if it could cross-subsidize its American operations with profits from abroad. Unless persons injured by the conspiracy's effects on foreign commerce could also bring antitrust suits against the conspiracy, the conspiracy could remain profitable and undeterred.
>
> It is no rejoinder that conspirators would simply choose to exclude the United States from any price-fixing conspiracy as long as American plaintiffs could sue. In at least some cases, including the United States in a price-fixing conspiracy is necessary to generate monopoly profits. Otherwise, arbitrage would rapidly equalize unequal prices around the globe as speculators resold goods purchased in the United States to buyers in high-price regions. Thus, a cartel may find it impossible to fix prices anywhere without a worldwide conspiracy. The Sherman Act can only deter these violations if it protects all parties injured by such a conspiracy.

The circuit courts have added their voices to the notion that failure to deter international cartels will give rise to additional harms in the U.S. As the D.C. Circuit noted in *Empagran*, the Second Circuit's *Kruman* decision relies in part upon the importance of deterrence.[274] While the Second Circuit believed that the extraterritorial application of the antitrust laws would create additional deterrence when the domestic and foreign cartel schemes have a greater chance of success when implemented together,[275] the empirical research suggests that for some international cartels the schemes *must* be implemented together, or else the cartel's ability to control prices would be eroded by geographic arbitrage.[276]

Add to this the legislative history of the FTAIA itself, which speaks of the deterrent effect of foreign antitrust suits. Specifically, the legislative history states that "to deny foreigners a recovery could under some circumstances so limit the deterrent effect of United States Antitrust Law that defendants would continue to violate our laws, willingly risking the smaller amount of damages payable only to injured domestic persons."[277]

However, proving an effect on U.S. commerce sufficient to give rise to jurisdiction in a U.S. court under the FTAIA is only the start of the analysis.[278] Rather, in the realm of Professor Schwartz's discussion of the tripartite analysis in *Timberlane* and *Mannington*,[279] the FTAIA only

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Den Norske Stats Oljeselskap As v. HeereMac Vof, 241 F.3d 420, 435 (2001).

274. Kruman v. Christie's Int'l, 284 F.3d 384, 403 (2d Cir. 2002). The Court noted:

> One might argue that our antitrust laws will be effectively enforced as long as the plaintiffs injured by the domestic anticompetitive effects of such conduct bring suit. A response to this argument is that when anticompetitive conduct is directed at both foreign and domestic markets, the success of an anticompetitive scheme in foreign markets may enhance the effectiveness of an anticompetitive scheme in the domestic market. When a foreign scheme magnifies the effect of the domestic scheme, and plaintiffs affected only by the foreign scheme have no remedy under our laws, the perpetrator of the scheme may have a greater incentive to pursue both the foreign scheme and the domestic scheme rather than the domestic scheme alone. Our markets suffer when the foreign scheme is not deterred because the domestic scheme may have a greater chance of success when it is supplemented by the foreign scheme. Our markets can benefit from the additional deterrence of conduct affecting foreign markets.

Id.

275. *Id.*

276. *See supra* Section IV.C.

277. *See* H.R. Rep. No. 97-686, *supra* note 52, at 11.

278. An additional step, not important for our purposes here, would be for the plaintiffs to be able to meet the standing requirements. *See* Atlantic Richfield Co. v. USA Petroleum Co., 495 U.S. 328, 334 (1990) (plaintiff must have injury of the type that the antitrust laws were designed to prevent).

279. *See supra* note 47.

addresses the first issue of determining the nexus between the activity and U.S. interests.[280]

A second crucial step would be to balance the "legitimate foreign national concerns and shared comity interests against the U.S. commitment to preserve competition."[281] This is the jurisdictional rule of reason analysis that was applied under the common law, and that is inherent in addressing the interests of competing legal regimes. While the Supreme Court doubts the ability of the courts to engage in such balancing, the interests of foreign nations are not equivalent, and thus balancing must be done on a nation-by-nation basis. In other words, courts cannot assume that each sovereign nation has identical interests and policies and that the outcome of a balancing of the U.S. interest in regulating competitive activity with those policies would be uniform.[282]

To this should be added Professor Schwartz's caveat that it is insufficient to balance competing interests.[283] It may be the case that foreign concerns could be addressed without completely eviscerating extraterritorial application of the antitrust laws. Thus, as the third factor in this analysis, it is argued that "[d]etermining whether legitimate foreign concerns can be adequately accommodated through modulating relief rather than 'abstention' under [comity concerns] . . . or ad hoc modification of well-settled rules under [examination of the reasonableness of the restraint]."[284] In other words, complete evisceration of extraterritoriality should only be had as a last resort, if a less restrictive alternative method of alleviating comity concerns is available.

The above test provides the courts with a great degree of latitude in dealing with complex antitrust cases. This is as it should be. It is no answer to deny enforcement of the antitrust laws merely because the cases are difficult. To argue so would mean that courts should not have jurisdiction over many types of cases that frequently come before it. In *Empagran*, the Supreme Court adopted this philosophy, settling for a hard and fast rule that sacrificed the purposes underlying the antitrust laws, the ability of those laws to deter unlawful conduct, and created an

280. *Id.*

281. Schwartz, *supra* note 47, at 536-37.

282. *See* Mannington Mills, Inc. v. Congoleum Corp., 595 F.2d 1287, 1298 (3d Cir. 1979) ("Although the plaintiff would prefer to have the matter resolved as a unitary one, that cannot be done when the individual interests and policies of each of the foreign nations differ and must be balanced against our nation's legitimate interest in regulating anticompetitive activity."). For example, firms that serve as ringleaders of a cartel may be "national champions," from which the home-country government prefers to exempt from anti-cartel enforcement.

283. *See generally* Schwartz, *supra* note 47.

284. *Id.* at 536-37.

environment ripe for recidivism by international cartels.

VI. Conclusion

Modern international cartels with global reach present a knotty challenge to current antitrust enforcement practices. Cartels that sell internationally tradable commodities and that aim to fix prices in two or more regions with different national currencies cannot control currency exchange rates. As a consequence, private international cartels must prevent geographic arbitrage through frequent realignment of national prices if their control over price is to succeed. The vitamins cartel and scores of the largest cartels uncovered by antitrust authorities since 1990 embody these characteristics, and direct evidence exists that cartel managers in fact were aware that unchecked arbitrage would undermine their scheme. Therefore, the purchases of cartelized goods by wholly foreign buyers play an integral role in creating the antitrust injury incurred by wholly domestic direct purchasers.

Even under ideal prosecutorial outcomes, in the absence of extraterritorial application of the antitrust laws, the global reach of modern cartels insures that the monetary payouts of guilty international cartelists cannot succeed in disgorging all the illegal cartel profits. That is, the imposition of maximum government fines combined with fully successful civil suits in North America will inevitably result in amounts less than single global damages. It would therefore be utterly rational for a would-be cartelist to form or join an international price-fixing conspiracy. Only if treble damages are available to wholly foreign buyers might the balance tip: if plaintiffs like at issue in *Empagran* are successful in American courts, the monetary penalties imposed on prosecuted members of cartels could, at least in theory, in most cases exceed the monopoly profits. This will likely discourage cartel formation.

Even assuming prosecutorial conditions will resemble recent historical patterns of punishment; the D.C. Circuit's approach, as modified here, would greatly improve international cartel deterrence and would lead it to approach optimal deterrence, all the while balancing important comity concerns. The precise degree of deterrence will depend on the perceived probability that international cartels will be detected, investigated, and convicted. It is widely believed that the probability of detecting clandestine cartels is less than one-third. The degree of deterrence will also depend on the proportion of the price-fixing overcharges awarded to plaintiffs in civil suits, which on average has been less than 100%, and in individual cases never exceeds double damages. If these estimates are correct and conditions remain unchanged, permitting wholly foreign buyers to seek redress for antitrust injury in U.S. courts will mean that typical would-be cartelists will face, if not an optimal level of deterrence, the likelihood of a much smaller degree of under-deterrence than exists today.