

No. 03-724

IN THE
Supreme Court of the United States

E. HOFFMANN-LA ROCHE LTD, *et al.*

Petitioners,

v.

EMPAGRAN, S.A., *et al.*

Respondents.

On Writ of Certiorari to the
United States Court of Appeals
for the District of Columbia Circuit

**BRIEF FOR CERTAIN PROFESSORS
OF ECONOMICS AS *AMICI CURIAE*
IN SUPPORT OF RESPONDENTS**

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INTEREST OF THE *AMICI CURIAE*¹

Amici are professors and scholars who teach and write on economic issues and are concerned about the effectiveness of our antitrust laws in protecting American consumers and businesses. They are B. Douglas Bernheim, Lewis and

¹ The parties have consented to the filing of this brief and their letters of consent have been lodged with the Clerk. Pursuant to Rule 37.6, we state that no counsel for a party has written this brief in whole or in part and that no person or entity, other than these *amici* or their counsel, has made any monetary contribution to the preparation or submission of this brief.

Virginia Eaton Professor of Economics, Stanford University; Vincent P. Crawford, Professor of Economics, University of California, San Diego; Robert E. Hall, Robert and Carole McNeil Professor of Economics and Senior Fellow, Hoover Institution, Stanford University; Robert C. Marshall, Head, Department of Economics & Professor of Economics, The Pennsylvania State University; Paul Milgrom, Shirley R. and Leonard W. Ely Jr. Prof. of Humanities and Sciences, Stanford University; Jeffrey M. Perloff, Professor of Agricultural and Resource Economics, University of California, Berkeley; and Halbert L. White, Jr., Professor of Economics, University of California, San Diego.

Various of the *amici* have taught, researched and published analyses of the economics of cartels and the effect of government policy on the incentive to engage in price-fixing behavior. *Amici* file this brief solely as individuals and not on behalf of the institutions with which they are affiliated. None of the *amici* represents or is employed by any party in this action.²

SUMMARY OF ARGUMENT

This brief provides an analysis of policy issues pertinent to the question of whether foreign purchasers should be permitted to sue under U.S. antitrust law for overcharges by cartels encompassing international markets that include the United States. We argue that in such circumstances economic logic counsels allowance of the claims of all victims in order to preserve the deterrent effect of U.S. antitrust law for the benefit of U.S. consumers and businesses.

It is generally recognized that the primary focus of U.S. antitrust law is to provide a deterrent to behaviors that harm

² Four of the *amici* (Professors Bernheim, Marshall, Perloff and White) were retained by domestic purchasers of vitamins to provide economic services in separate actions against Petitioners.

U.S. commerce. We will argue that legal remedies based on domestic transactions alone are typically insufficient to deter price-fixing behavior in the case of cartels that operate in international markets that include the United States. This logic applies typically to all conspiracies in which the relevant geographic market is broad enough to encompass the United States and the locations of the pertinent foreign transactions.

In international markets where products move relatively freely, a successful price-fixing cartel will need to take into account product flows between regions. In this context, a relevant geographic market constitutes the set of regions in which the flow of product is sufficiently responsive to regional differences in price to significantly limit price differences. If a price-fixing cartel tried to raise prices in only one portion of its relevant market, market forces would reallocate commodities from the unaffected portion to the affected portion and thus restrain the effectiveness of any regional price increases.

Applied to a situation in which the relevant geographic market includes the United States and other regions of the world, this logic implies that any attempt by a cartel to raise prices outside the United States, without affecting U.S. prices, or vice versa, will be restrained by profitable reallocation opportunities (arbitrage). Therefore, in such markets price-fixing cartels have an incentive to target prices both inside and outside the United States to maximize their potential gains. Indeed, in the case of multinational buyers who source an input product in several regions, a cartel may be forced to fix prices in all regions in order to be credible to its buyers. The injuries sustained by foreign victims therefore bear a very real connection to the conspiracy's effects on U.S. commerce, and vice versa. This logic, therefore, raises the important question of what remedies are necessary to deter harm to U.S. commerce.

The examples of the vitamins, lysine, citric acid, graphite electrodes, and other international price-fixing cartels illustrate that there is frequently inadequate deterrence to protect U.S. commerce from global price-fixing cartels unless all victims can pursue their remedies under U.S. law. In the case of the vitamins cartel, for example, the conspiring firms' worldwide profits have substantially exceeded the total value of government fines and the civil recoveries obtained thus far. More generally, given that antitrust enforcement outside the United States is less aggressive, and hence penalties significantly lower than in the United States, the prospect of treble damages for domestic transactions alone will likely be insufficient to deter the formation of a large international cartel, as non-U.S. profits will likely outweigh even the maximum possible sanctions available within the United States and abroad.

The focus on *ex ante* deterrence is particularly important in view of the fact that, according to some estimates, more than two-thirds of conspiratorial activity goes undetected and unpunished. That deterrence is weak in practice is illustrated by the observed recidivism of cartel members, many of which are serial offenders. As long as the gap between the expected costs and benefits of forming a cartel is large, which we show is often the case when cartels are international in scope, firms will have an incentive to engage in price-fixing behavior that harms U.S. consumers and businesses.

In summary, we believe that in order to maintain the deterrent effect of U.S. antitrust law for the benefit of U.S. commerce, the U.S. antitrust laws should allow price-fixing claims arising from foreign transactions that are within the same relevant market as affected U.S. transactions.

ARGUMENT

I. WHERE INTERNATIONAL MARKETS INCLUDE THE UNITED STATES, THERE HAS TYPICALLY BEEN INSUFFICIENT DETERRANCE AGAINST PRICE-FIXING CONSPIRACIES HARMING U.S. COMMERCE.

A. When Firms Act Collusively To Set Prices In International Markets That Include The United States, The Harm To Foreign Customers Is Inextricably Intertwined With The Harm To U.S. Customers.

A relevant geographic market constitutes the set of regions in which the flow of product is sufficiently responsive to regional differences in price to significantly limit price differences. By way of illustration, if the price in region *A* for a particular product were sufficiently high, buyers in that region would have an incentive to purchase the product from another region, say region *B*, and transport it to their location. They would do this if the cost savings from buying in region *B* were sufficient to offset the costs incurred in transporting the product to region *A* (plus any additional costs they may have to pay, such as tariffs or other administrative fees). Alternatively (and equivalently), there would be an opportunity for an intermediary to purchase the product in the lower-priced region and resell it in the higher-priced region.

It is well understood by economists that the mobility of products has important consequences for the efficacy of price-setting actions. If a price-fixing cartel sets out to raise prices substantially in only one portion of a relevant market, market forces would reallocate commodities from the unaffected portion to the affected portion and thus undercut the effectiveness of any attempted price increases. In other words, a higher price in region *A* could not be sustained unless prices in region *B* were high enough to make it

unprofitable for buyers in region *A* (or for other intermediaries) to engage in arbitrage.

When products can move freely between regions and countries, any attempt by a cartel to raise prices outside the United States, without affecting U.S. prices, will be restrained by profitable reallocation opportunities. In such markets, price-fixing cartels have a strong incentive to target prices both inside and outside the United States to maximize their potential gains. Moreover, in many markets, products are purchased by multinational firms through competitive procurement processes. A conspiracy that covers some regions of such a market but not others would presumably face a challenge in making a case to a multinational buyer for charging widely varying prices in different regions. Thus, cartels in international markets must be international in scope to be effective and credible when dealing with multinational customers. Therefore, price-fixing activity in non-U.S. regions that are closely tied to U.S. commerce will result in higher prices to U.S. customers.

A look at the activity of several recent international cartels reveals the extent to which firms coordinate price setting in multiple regions. The U.S. Department of Justice has given the following description:

[A] common characteristic of an international cartel is its power to control prices on a worldwide basis effective almost immediately. . . . Our experience with the vitamin, citric acid, and graphite electrode cartels, to name a few, shows that such pricing power is typical of international cartels and that they similarly victimize consumers around the globe. Cartel members often meet on a quarterly basis to fix prices. In some cases the price is fixed on a worldwide basis, in other cases on a region-by-region basis, in still others on a country-by-country basis. The fixed prices may set a range, may establish a floor, or may be a specific price, fixed down to the

penny or the equivalent. In every case, customer victims in the United States and around the world pay more because of the artificially inflated prices created by the cartel.³

Clearly, the effects on U.S. commerce of price-fixing activity in an international market that includes the United States will be connected to the effects on international commerce. Equally important, any attempt to analyze the incentives for cartel formation that does not take into account the portions of the relevant market outside the United States will substantially understate the true gains from forming a cartel that includes the United States and other regions.

B. An International Cartel That Is Caught And Prosecuted In The United States Still Stands To Make Substantial Gains From Its Price-Fixing Activity In The Absence Of Sherman Act Claims By Foreign Victims.

U.S. policy seeks to deter cartel formation by ensuring that the likelihood of detection is sufficiently high, and the consequences sufficiently severe, to outweigh the supra-normal profits potentially earned from price fixing. It does this through a *combination* of criminal penalties (fines and

³ James M. Griffin, *An Inside Look at a Cartel at Work: Common Characteristics of International Cartels*, Speech by Deputy Assistant Attorney General, Antitrust Division Before the American Bar Association Section of Antitrust Law 48th Annual Spring Meeting (Apr. 6, 2000), available at <http://www.usdoj.gov/atr/public/speeches/4489.htm>. Also, in a 2002 report titled *Report on the Nature and Impact of Hard Core Cartels and Sanctions Against Cartels Under National Competition Laws*, DAFNE/COMP(2002)7, at 8 (Apr. 9, 2002) (“OECD Report (2002)”), available at <http://www.oecd.org/dataoecd/16/20/2081831.pdf>, the Organization for Economic Co-operation and Development (“OECD”) notes that several of the international conspiracies had devised complex price-fixing schemes, which were augmented by market allocation agreements, either in the form of quotas or territorial agreements.

jail terms) and civil liability. Civil recoveries based on treble damages are often considerably larger than criminal fines, and consequently play a key role in establishing an adequate level of deterrence.

The potential gains from price fixing rise with the size of the cartelized market. Accordingly, to maintain adequate deterrence for large international cartels, it is important to ensure that the consequences of detection are proportionately more severe. With respect to civil remedies, this condition is not satisfied unless foreign purchasers have an ability to seek and collect treble damages comparable to that of domestic purchasers.

Foreign victims of international cartels have, in practice, limited ability to seek and collect damages in their home countries. The laws of several OECD countries provide for the recovery of compensatory damages, but not treble damages, and courts rarely impose any such civil remedies outside the United States.⁴ Likewise, most developing countries do not provide for trebling or other enhancement of the actual damages incurred by the victim.⁵ Consequently, unless foreign victims of international conspiracies can seek and collect damages in U.S. courts, the deterrent effect of civil liability is considerably attenuated, relative to domestic conspiracies.

⁴ See OECD, *Hard Core Cartels: Recent Progress and Challenges Ahead* (2003) ("OECD Report (2003)") at 29, available at <http://www1.oecd.org/publications/e-book/2403011E.PDF>.

⁵ See generally Margaret C. Levenstein & Valerie Y. Suslow, *Contemporary International Cartels and Developing Countries: Economic Effects and Implications for Competition Policy* (Mar. 1, 2004) ("Levenstein, et al (2004)"), available at <http://www-unix.oit.umass.edu/~maggie/ALJ.pdf>. "There are in many countries significant legal and procedural hurdles to such suits. Whatever the *de jure* potential of private implementation of competition policy, in practice such private suits are extremely rare." *Id.* at 37-38.

Moreover, criminal penalties outside the United States tend in practice to be significantly smaller as a fraction of the affected commerce.⁶ One recent study suggests that, while very large fines were imposed in a few countries, in the majority of countries significant fines had not been imposed in cartel cases.⁷ In addition, sanctions against individuals (in the form of fines or prison sentences) have also been applied in very few countries.⁸ This is even more so in the case of developing countries, where the legal infrastructure and political and human resources for effective competition policy enforcement often do not exist.⁹ While some foreign governments are becoming more aggressive in criminally prosecuting cartels, it is unrealistic to expect that the rest of the world will pursue criminal sanctions significantly *more* severe than those imposed in the United States. Efforts to harmonize international antitrust enforcement would at most bring foreign criminal sanctions *in line* with U.S. criminal sanctions. While this would replicate, for international cartels, the portion of deterrence stemming from U.S. criminal policy, it would not in any way compensate for the virtual absence of a foreign civil deterrent.

The example of the vitamins conspiracy provides a concrete illustration. Based upon publicly available information, defendants' worldwide vitamin sales during the period of admitted conspiracy totaled approximately \$30 billion.¹⁰

⁶ OECD Report (2003), Annex A.

⁷ *Id.* at. 28.

⁸ *Id.* at. 29. The report notes further that, in the period covered by the report, only Australia, Canada, Germany and the U.S. had imposed fines, and only the U.S. and Canada had imposed jail sentences.

⁹ See, Levenstein et al. (2004) at 37-38.

¹⁰ See, John M. Connor, *The Food and Agricultural Global Cartels of the 1990s: Overview and Update* (July 2002) (Staff Paper # 02-4, Department of Agricultural Economics, Purdue University)

Estimated overcharges across all vitamins averaged approximately 20-27 percent.¹¹ Therefore, estimated world-wide overcharge damages totaled approximately \$8 billion. Accounting for the time value of money over this ten-year conspiracy (between 1990 and 1999), we can calculate the real value of the damages to have been approximately \$18 billion.¹² Offsetting these profits, the defendants paid a total of \$2.2 billion in fines to the U.S., European, Canadian, and Australian competition authorities,¹³ and an estimated \$2.4 billion in civil settlements with U.S. purchasers.¹⁴ Therefore, ignoring legal fees, the vitamins conspirators netted

at 19, available at http://www.agecon.purdue.edu/staff/connor/papers/SP_02_4.htm; OECD Report at 34, Annex A.

¹¹ John M. Connor, *Private International Cartels: Effectiveness, Welfare, and Anticartel Enforcement* (Nov. 2003) (Staff Paper # 03-12, Department of Agricultural Economics, Purdue University) (“Connor 2003”) at 126, Appendix Table 6A, available at http://www.agecon.lib.umn.edu/cgi-bin/pdf_view.pl?paperid=11506&ftype=.pdf; Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?*, (Jan. 21, 2002) (working paper, University of Michigan Business School) (“Levenstein & Suslow (2002)”) 50, Table 15, available at <http://www-unix.oit.umass.edu/~maggiel/JEL-1-04.pdf>.

¹² The present value of damages is calculated by pro-rating damages equally over the conspiracy period, and using a 1 percent premium over the annual prime rate to express damages in 2003 dollars.

¹³ Fines are expressed in 2003 dollars, adjusted using a 1 percent premium over the annual prime rate, and calculated from the date of announcement of the fine. These numbers are consistent with estimates proffered in Petitioners’ brief and the briefs for the Federal Republic of Germany and the United States as *amici curiae*. See Appendix A for a list of fines by defendant and jurisdiction.

¹⁴ Settlements are expressed in 2003 dollars, assuming \$2 billion in civil settlements paid out in 2002. See Brief for the United States as Amicus Curiae (“Government Brief”) at 2. If there have been any civil damage recoveries in foreign courts, we are unaware of them.

approximately \$13.6 billion in illegal worldwide profits despite having been caught.¹⁵

A more general point can be made here. For international cartels, treble damages within the United States are often insufficient to deter even violations that are caught with certainty. Suppose that the United States accounts for 25 percent of the relevant worldwide market for a product whose price is fixed. Further assume that the overcharge is \$10 billion.¹⁶ Under the extreme assumption (adopted here to simplify the illustration) that there is no punishment for colluding outside the United States, the gain from price fixing abroad is the whole amount of the overcharge, which equals \$7.5 billion. Assuming that treble damages of \$7.5 billion are imposed within the United States, the net loss from colluding in the United States is twice the U.S. overcharge, or \$5 billion. Therefore, so long as government penalties and legal costs are under \$2.5 billion, the conspiracy will make a net profit.¹⁷ Clearly, in this case even U.S. treble damages are insufficient to cover the cartel's gains *ex post*. In practice, companies that are caught and prosecuted typically settle for much less than treble damages, so that the cartel's final

¹⁵ This conclusion is not particularly sensitive to the assumed overcharge. Even with an assumed overcharge of 15 percent, the vitamins conspirators would have netted over \$7.6 billion in illegal profits.

¹⁶ This is assumed to include the lost time value of money, over the life of the cartel. Note that overcharges are often stated exclusive of the time value of money, a practice that can substantially understate the true loss to buyers.

¹⁷ The conspirators' profits are not necessarily co-extensive with the harm that the conspiracy causes. In addition to the misallocation of resources from buyer to seller caused by overcharges, conspiracies produce other productive and dynamic harm because cartels tend to shelter their members from full exposure to market forces. Examples include limiting the incentive of participants to innovate or control costs. See OECD Report (2002) at 2.

profits may be a much larger proportion of the original overcharge.¹⁸

Empirical evidence on the excess profits earned by global conspiracies is difficult to obtain. Generally, studies estimate that the median overcharge is approximately 15 to 25 percent.¹⁹ Successful global cartels affect a high volume of international commerce, and can cause substantial harm to consumers in the United States and other countries.

II. ECONOMIC LOGIC IMPLIES THAT, IN ORDER TO EFFECTIVELY DETER GLOBAL PRICE-FIXING CONSPIRACIES, CLAIMS BY FOREIGN CUSTOMERS SHOULD BE ALLOWED IN U.S. COURTS IN CASES INVOLVING SUCH CONSPIRACIES

A. Effective Deterrence Requires An Alignment Of The Geographic Scope Of The Cartelized Market With The Geographic Scope Of Enforcement.

In engaging in the analysis necessary to decide whether to form a cartel or not, participating firms balance their expected costs and the expected benefits of forming a cartel. Among the costs are the possible fines from detection and prosecution by antitrust authorities, the expected damages arising from civil litigation, and the potential losses arising from a price war if one or more members of the cartel are found to deviate from the cartel agreement. These costs will be weighted by the probability of a price war occurring and, in the case of legal penalties, of the cartel being detected and prosecuted.

¹⁸ See Connor (2003) at 67-71 for a discussion of actual versus theoretical penalties imposed on international cartels.

¹⁹ See, eg., OECD Report (2002) at 9.

The expected benefits will depend in part on the firms' estimate of how market conditions and other factors will play out.

The example of the vitamins cartel in the previous section illustrated that in the case of an international cartel, the costs associated with detection and prosecution may be insufficient to deter the formation of the cartel because the conspirators can expect the cartel to make substantial profits even if it is detected. In making an *ex ante* decision on whether or not to engage in collusion, therefore, cartel members would take into account the fact that the penalties for detection and prosecution would not outweigh the profits they could reap from fixing prices.

This illustrates the general principle that, in situations where the geographic scope of the cartelized market exceeds the geographic scope of enforcement, remedies that are confined to purchasers in a single jurisdiction will likely be inadequate to deter cartel formation. This same principle explains why it is appropriate for the federal government to have the major responsibility for antitrust enforcement within the United States. The penalties embedded in U.S. antitrust laws are appropriate for domestic conspiracies because they presuppose an alignment of the scope of the cartelized market and the scope of enforcement. Allowing foreign claims in U.S. courts extends this principle to international conspiracies, establishing a level of deterrence comparable to what the current law achieves for domestic conspiracies.

B. Correctly Aligning The Geographic Scope Of Enforcement With The Geographic Scope Of The Cartelized Market Will Not Undermine The Deterrent Effect Of The Amnesty Program.

The Government's brief has expressed concern that allowing U.S. courts to hear claims based on all transactions affected by the same conduct, and not just domestic ones,

would reduce the incentives for conspirators to seek amnesty from criminal prosecution by the Department of Justice, and therefore reduce the number of conspiracies that are detected and prosecuted, thus weakening deterrence.²⁰ We believe that this concern is unfounded, for the following reasons.

1. The amnesty program cannot provide adequate incentives for deterrence unless penalties are commensurate with overcharges.

The prospect of larger damages may (but does not necessarily) reduce the *ex post* incentives for conspirators to seek amnesty. However, we have already seen that, even assuming that conspirators are prosecuted and pay full damages for domestic transactions, cartel members still stand to gain from engaging in price-fixing activity. Therefore, increasing the probability that an existing cartel would be caught and prosecuted through an amnesty program still would likely be insufficient to deter the formation of a cartel in the first place. An amnesty program that effectively deters cartel formation should result in *fewer* firms coming forward to report cartel behavior because there are fewer cartels to report.

2. With the scope of enforcement aligned with the scope of cartelized markets, the amnesty program can be expected to perform as well (in terms of providing incentives for disclosure) for international cartels as it currently performs for domestic cartels.

The Government's argument amounts to the assertion that, to improve the incentive effects of the amnesty program, it is desirable to moderate civil penalties by preventing certain victims of a cartel from suing. The Government has made this argument in the context of international conspiracies, where the entities prevented from suing would be foreign

²⁰ Government Brief at 20, 21.

purchasers. However, the logic of the government's argument, if correct, applies equally to domestic cartels. For example, the incentives in the amnesty program would be strengthened if, for cartels involving markets coterminous with the United States, victims located west of the Mississippi were precluded from suing. If allowing suits by all victims of domestic conspiracies does not significantly weaken the incentive effects of the amnesty program, and is judged on balance beneficial for antitrust enforcement, then similar treatment of international conspiracies should also not unduly weaken the incentive effects of the amnesty program to the point where antitrust enforcement is, on balance, weakened.

One might argue in response that the incentive effects of the amnesty program would differ for domestic and international conspiracies were suits by foreign purchasers permitted in U.S. courts, on the ground that international conspiracies are, on average, larger than domestic conspiracies. This argument is faulty in two respects. First, enlarging a conspiracy scales up both the costs and benefits from participating in the amnesty program. It does not systematically tip the balance in favor of the costs. Second, were this argument correct, it would at most require a slight modification of the previous paragraph's conclusion: if allowing suits by all victims does not significantly weaken the incentive effects of the amnesty program for *large* domestic conspiracies, and if it is judged on balance beneficial for antitrust enforcement in this context, then neither should it unduly weaken the incentive effects of the amnesty program for international conspiracies to the point where antitrust enforcement is, on balance, weakened.

3. The most important incentives for disclosure of active cartels are often non-pecuniary sanctions imposed on individuals, and these frequently overshadow the effects of pecuniary consequences for their corporations.

There are powerful non-pecuniary incentives to voluntary disclosure of conspiracies. Under the amnesty program, corporate executives and employees can avoid prison time and personal fines, and those individual interests can be at least as important as saving corporate money. Statements by Department of Justice officials have repeatedly emphasized this factor as a significant source of amnesty applications. The Antitrust Division's Director of Criminal Enforcement recently reported as follows:

It is widely accepted, and it has certainly been our experience in the United States, that holding executives accountable for participating in cartel offenses by prosecuting them criminally and imposing jail sentences provides the greatest deterrent to these crimes. Because while cartel members may regard surcharges and fines as simply a cost of doing business, the loss of individual liberty is rarely viewed the same way. So it makes sense that the threat of incarceration is also the greatest inducement to self reporting and cooperation²¹

The current Deputy Assistant Attorney General in charge of criminal antitrust enforcement has similarly referred to “the

²¹ Scott D. Hammond, *Beating Cartels at Their Own Game—Sharing Information in the Fight Against Cartels*, Speech by Director of Criminal Enforcement, Antitrust Division Before the Inaugural Symposium on Competition Policy by the Competition Policy Research Center Fair Trade Commission of Japan, at 13-14 (Nov. 20, 2003), *available at* <http://www.usdoj.gov/atr/public/speeches/201614.pdf>; *see also* Scott D. Hammond, *When Calculating the Costs and Benefits of Applying for Corporate Amnesty, How Do You Put a Price Tag on an Individual's Freedom*, Speech by Director of Criminal Enforcement, Antitrust Division Before the Fifteenth Annual National Institute on White Collar Crime of the American Bar Association Criminal Justice Section, at 8, 10 (Mar. 8, 2001), *available at* <http://www.usdoj.gov/atr/public/speeches/7647.pdf> (noting the incentives to a company's seeking amnesty arising from “potentially devastating consequences on its executives” and the business disruptions caused by “having key members of your senior management . . . indicted and labeled as international fugitives”).

stunning incentives and rewards to companies *and their executives* that take advantage of the Amnesty Program,” going on to refer to instances when “the amnesty applicant paid zero dollars in criminal fines, and its cooperating executives received nonprosecution protection.”²²

4. Any reduction in the frequency of disclosure due to the amnesty program would be offset by an increase in detection resulting from victims’ incentives.

There would be a potentially offsetting increase in the incentives of victims to investigate and bring private antitrust actions. That is, even if we make the unlikely assumption that antitrust authorities might discover significantly fewer conspiracies because of a decrease in leniency applications, the international victims themselves would likely discover more international conspiracies if allowed to collect damages.²³ Thus, it is by no means clear that allowing foreign claims will lead to a decrease in detection of conspiracies.

²² James M. Griffin, *A Summary Overview of the Antitrust Division’s Criminal Enforcement Program*, Speech by Deputy Assistant Attorney General, Antitrust Division Before the American Bar Association Section of Antitrust Law Annual Meeting, at 8 (Aug. 12, 2003), *available at* <http://www.usdoj.gov/atr/public/speeches/201477.pdf> (all italics in original).

²³ See Julian L. Clarke & Simon J. Evenett, *The Deterrent Effects of National Anti-Cartel Laws: Evidence from the International Vitamins Cartel* (Dec. 2002) (Working Paper 02-13, AEI-Brookings Joint Center for Regulatory Studies), *available at* <http://www.aei-brookings.org/admin/authorpdfs/page.php?id=218> at 2; see also Salil K. Mehra, “A” is for Anachronism: *The FTAIA Meets the World Trading System*, 107 Dick. L. Rev. 763, 770 (2003) (“[T]he private right of action encourages private plaintiffs to aid and inform government enforcement agencies—thus providing a force-multiplier to those agencies’ own resources.”)

C. Allowing Foreign Claims In U.S. Courts Will Not Result In Over-Deterrence.

One possible concern with allowing foreign claims in U.S. courts is that this might result in a situation of inefficient over-deterrence. For instance, it may be argued that the threat of greater legal penalties could serve to chill socially beneficial interaction between firms (*e.g.*, in standard-setting bodies). We believe this concern is unfounded for the following reasons.

1. By aligning the scope of enforcement with the scope of cartelized markets, allowing foreign claims in U.S. courts simply brings deterrence for international conspiracies in line with deterrence for U.S. domestic conspiracies.

As we have argued above, in the absence of adequate penalties for transactions outside the United States, firms in an international market face a lower incentive against forming a cartel than do firms in a purely domestic market. Given that the ratio of damages to awards in the case of domestic cartels is intended to balance the costs and benefits of deterrence, and that the law does not envision differential treatment for large and small conspiracies, increasing the penalties to international cartels would do no more than bring on par the treatment of domestic and international cartels. In other words, given that the Sherman Act regulates behavior between domestic firms as it pertains to U.S. commerce, an assertion that permitting claims against foreign firms that include U.S. commerce within the scope of their activity would result in over-deterrence is equivalent to claiming that the activity of these firms within the United States is currently being over-deterred.

2. A regime limited to domestic victims would be characterized by under-deterrence, not over-deterrence.

In our view, U.S. antitrust remedies do not over-deter interaction between firms. Indeed, the evidence supports the

view that there is under-deterrence of price fixing unless foreign victims are also allowed to sue.

It is estimated that most cartels have only a 10 to 30 percent chance of being discovered.²⁴ Thus, *ex ante* expected profits are even higher than they would be once a cartel has been caught, further widening the gap between the costs and benefits of cartel formation. To return to the example above, suppose now that the prospective cartel members are evaluating the decision to collude *ex ante*, and suppose that the maximum probability of detection is 33 percent. Maintaining the assumption that no penalties are imposed outside the United States, the expected costs of cartel formation are now the treble damages times the probability that the cartel will be caught and prosecuted, or \$2.5 billion. The net expected profit from cartel formation (abstracting from uncertainty on the benefit side) goes up to \$7.5 billion—the full amount of the foreign overcharge.

Given that more than two-thirds of cartel activity goes undetected and unpunished, it is clear that the *ex ante* deterrence of cartel behavior is too weak to deter the vast majority of international cartel activity unless foreign claims are allowed. Allowing foreign claims in U.S. courts would directly reduce the size of the gap between cost and benefit by making the expected costs of forming a cartel substantially

²⁴ See Connor (2003) at 63, n. 68; See also Peter G. Bryant & E. Woodrow Eckard, *Price Fixing: The Probability of Getting Caught*, 73 Rev. Econ. & Stat. 531, 535 (1991) (estimating the probability that a price-fixing conspiracy will be prosecuted by federal authorities to be at most between 13 and 17 percent in a given year). As with estimates of the overcharge, there is limited empirical evidence to determine the number of cartels that are uncovered. Cohen and Scheffman argue that the detection probability for antitrust crimes is probably similar to that for other regulatory and business crimes, which other studies have estimated to be of the order of one in four to one in three. See Mark A. Cohen & David T. Scheffman, *The Antitrust Sentencing Guideline: Is the Punishment Worth the Costs?*, 27 Am. Crim. L. Rev. 331, 348 (1989).

larger than they currently are.²⁵ To quote an official of the Department of Justice:

Since cartels are essentially covert conspiracies, their detection and prosecution will always be difficult, and so the probability of getting caught will not be very high. It is apparent, based on this way of thinking about deterrence, that simply taking away the illegal profits will not suffice to deter antitrust violations by corporate conspirators, since a firm, even if caught, would be no worse off than before it started, while if it were able to avoid detection, it could profit handsomely. Instead, penalties must be significantly greater than the expected rewards of cartel participation.²⁶

One indicator of the weakness of deterrence in the absence of foreign victims' claims is the number of recently prosecuted cartel participants that are repeat offenders. Well known examples include Hoffmann-La Roche (vitamins, citric acid), Aventis (vitamins, methionine, methyl glucamine), ADM (lysine, citric acid), Akzo (sodium gluconate,

²⁵ There is a large literature on optimal deterrence, which points out that the optimal deterrent is usually a number substantially higher than the actual harm, to account for the fact that many cartels go undetected. For example, the OECD observes that "[b]ecause not all cartels are detected, the financial sanction against one that is detected should exceed the gain actually realised by the cartel. Some believe that as few as one in six or seven cartels are detected and prosecuted, implying a multiple of at least six. A multiple of three is more commonly cited, however." See OECD Report (2002) at 3.

²⁶ Stuart M. Chemtob, *Antitrust Deterrence in the United States and Japan*, Remarks by Special Counsel for International Trade, Antitrust Division at a Conference on Competition Policy in the Global Trading System: Perspectives from Japan, the United States, and the European Union, at 3 (June 23, 2003), available at <http://www.usdoj.gov/atr/public/speeches/5076.pdf>.

choline, monochloroacetic acid and sodium monochloroacetate), and a host of others.²⁷

D. Increasing The Legal Penalties For Cartel Formation Will Not Reinforce Cartel Behavior.

Another potential concern is that increasing the severity of legal remedies might in theory help firms maintain price discipline once a cartel is formed by providing them with a more powerful tool for punishing members who attempt to lower prices unilaterally. The logic of cartel formation requires that firms enforce coordinated behavior (*i.e.*, price-fixing) by “punishing” firms that deviate from the cartel’s joint decision, usually through price wars or other loss-inducing tactics. In theory, if the non-cheating members of a cartel punished cheaters by disclosing their anticompetitive practices to antitrust authorities (in return for amnesty or a reduced sentence), an increase in potential civil remedies could make these punishments more severe, thereby dissuading firms from cheating in the first place.

We note, however, that informing on the cartel to authorities is a punishment that in practice is unlikely to be used in situations where a cartel member is found deviating from the price-fixing agreement (as opposed to a situation where firms may be under investigation). Research on the incentives to sustain cartel behavior suggests that firms will typically punish other firms through means that preserve the

²⁷ See e.g. Griffin (2003) at 7 and the case filings and press releases of the Department of Justice and other authorities at, among others, <http://www.usdoj.gov/aatr/cases/f1000/1077.htm>; <http://www.usdoj.gov/aatr/cases/f2400/2452.htm>; <http://www.usdoj.gov/aatr/cases/f0900/0918.htm>; http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/02/1746|0|AGED&lg=EN&display=; http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/02/976|0|AGED&lg=EN&display=; <http://cb-bc.gc.ca/epic/internet/incb-bc.nsf/vwGeneratedInterE/ct02711e.html>.

possibility of future collusion, rather than by “ending the game” through informing the authorities.²⁸ For instance, firms will often engage in periods of price wars before returning to price fixing.²⁹

E. Aligning The Geographic Scope Of Enforcement With The Geographic Scope Of Cartelized Markets Will Not Flood U.S. Courts With Claims By Foreign Plaintiffs.

The concern has also been expressed that extending U.S. antitrust laws to foreign transactions would flood U.S. courts with foreign plaintiffs. In our view, however, this concern is unwarranted for the following reasons.

1. The scope of allowable claims would be limited.

Although a substantial number of foreign claims would potentially qualify under the principles we propose (hard-core horizontal conspiracies with foreign transactions that are within the same relevant market as affected U.S. transactions), many more would be excluded. For instance, one recent study found that, by number, the vast majority of cartels operate within a nation’s boundaries.³⁰

Limiting the scope of U.S. antitrust law to claims derived only from transactions in relevant markets that include the United States would increase the number of claims only to the

²⁸ See Dilip Abreu, David Pearce, & Ennio Stacchetti, *Optimal Cartel Equilibria with Imperfect Monitoring*, 39 J. Econ. Theory 251 (1986); Dilip Abreu, David Pearce, & Ennio Stacchetti, *Toward a Theory of Discounted Repeated Games with Imperfect Monitoring*, 58 *Econometrica* 1041 (1990).

²⁹ For instance, see the discussion in Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?* (Jan. 2004) available at <http://www.unix.oit.umass.edu/~maggie1/JEL-1-04.pdf> at 10-13 of cartels which cycled in and out of collusion, sometimes over long periods of time.

³⁰ See OECD Report (2002) at 7-8.

extent necessary to deter the formation of international cartels that substantially and directly affect U.S. consumers and businesses. At the same time, it will necessarily exclude “purely foreign” conspiracies—those conspiracies where the conduct and anticompetitive effects occur only in foreign countries—from the ambit of U.S. antitrust law.

2. With more effective deterrence, there will be fewer legitimate claims of price fixing.

Concerns regarding an explosion in the number of cartel prosecutions in U.S. courts ignore the fact that the primary focus of antitrust law should be on *ex ante* deterrence. When the scope of enforcement and cartelized markets are improperly aligned, deterrence is insufficient and ineffective. Bringing remedies in line with the harm caused by international cartels will lead to fewer cartels being formed, and hence fewer claims that can legitimately be brought by foreign plaintiffs in U.S. courts.

CONCLUSION

In examining the deterrent effect of U.S. antitrust law on the formation of international cartels, we find that there is frequently inadequate protection of the welfare of U.S. consumers. The current level of criminal and civil remedies is often not sufficient to deter cartel formation in large international markets, leading to a situation where firms that operate in these markets can cause substantial harm to U.S. consumers. Focusing on *ex ante* deterrence is critical given the extent to which cartels may go undetected and unpunished. Hence, the economists joining this brief believe that economic logic counsels allowance, in U.S. courts, of price-fixing claims derived from foreign transactions that are

within the same relevant market as affected U.S. transactions in order to preserve the deterrent effect of U.S. antitrust law for U.S. consumers and businesses.

Respectfully submitted,

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March 15, 2004

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APPENDIX

APPENDIX

**Vitamins Fines Imposed By U.S. And Foreign Antitrust
Authorities, In Millions Of U.S. Dollars**

Defendant	United States	Europe	Canada	Australia	Total
Roche	\$500	\$410	\$32	\$8	\$951
BASF	\$225	\$263	\$13	\$4	\$505
Rhône-Poulenc	Amnesty	\$4.5	\$9	\$2	\$16
Takeda	\$72	\$33	\$34		\$108
Eisai	\$40	\$12	\$1.4		\$53.1
Daiichi	\$25	\$21	\$1.7		\$47.5
Merck	\$14	\$8	\$0.7		\$22.9
Degussa	\$13		\$1.6		\$14.6
Lonza	\$10.5		\$0.7		\$11.2
Nepera	\$4		\$0.2		\$4.2
Reilly	\$2		\$0.02		\$2.0
Bioproducts	Amnesty				\$0.0
Chinook	\$5		\$1.5		\$6.5
Ducoa	\$0.5				\$0.5
Solvay		\$8			\$8.1
Hoecsht			\$0.3		\$0.3
Totals	\$911	\$760	\$66	\$14	\$1,751

Source: DOJ Press releases, 1999-2002; CCB news releases, 1999-2002; ACCC news release, February 28, 2001; EC Press Release, November 21, 2001; Julian L. Clarke & Simon J. Evenett, *The Deterrent Effects of Anti-Cartel Laws: Evidence from the International Vitamins Cartel* (Dec. 2002) (Working Paper 02-13, AEI-Brookings Joint Center for Regulatory Studies).