DEPARTMENT OF JUSTICE

SEVEN STEPS TO BETTER CARTEL ENFORCEMENT

THOMAS O. BARNETT
Assistant Attorney General
Antitrust Division
U.S. Department of Justice

Presentation to the

11th Annual Competition Law & Policy Workshop
European Union Institute
Florence, Italy

June 2, 2006

Seven Steps to Better Cartel Enforcement

Thomas O. Barnett[1]

I. Introduction

Cartels are "the supreme evil of antitrust."[2] The fixing of prices, bids, output, and markets by cartels has no plausible efficiency justification; therefore, antitrust authorities properly regard cartel behavior as *per se* illegal or a "hard core" violation of the competition laws. While recognition of the dangers posed by cartels has reached something close to an international consensus, it is not enough merely to label cartels as harmful; cartelists have proven resistant to powers of persuasion or shame, perhaps because the anticompetitive rents available through cartel behavior can be so large. Cartels can only be deterred through vigorous prosecution.

The United States has long experience prosecuting cartels and its efforts have yielded solid results. Some of those results are quantifiable: in fiscal years 2004 and 2005, and so far in 2006, the Antitrust Division of the Department of Justice has obtained fines of $350 million, $338 million, and $467.5 million, respectively, and has brought criminal cases against 63 firms. Some of the results are less tangible, but no less real: the Division has uncovered evidence that some cartelists choose to compete in the United States, even while continuing cartel behavior in other nations, due to the fear of U.S. prosecution. The success of the United States model leads me to offer the following set of useful practices for the detection and prosecution of cartels.

II. Seven Steps for Detecting, Prosecuting, and Ultimately Deterring Cartels

The Antitrust Division's anti-cartel enforcement program has been built over many years of dedicated effort. Based on our experience, each of the following seven practices has contributed to the success of the program: (i) focus prosecutors on "hard core" collusive activity; (ii) treat cartels as serious crimes; (iii) provide an amnesty program and "amnesty plus"; (iv) vigorously prosecute obstruction of justice; (v) charge cartels in conjunction with other offenses; (vi) provide transparency and predictability; and (vii) publicize these enforcement efforts.

---

[1] Thomas O. Barnett is the Assistant Attorney General for Antitrust at the United States Department of Justice. Prior to his confirmation to that position in February 2006, he served the Department as Deputy Assistant Attorney General or Acting Assistant Attorney General since April 2004. Before joining the Department, Mr. Barnett was a partner at the law firm of Covington & Burling in Washington, D.C., where he served as vice chair of the firm's Antitrust and Consumer Protection practice group.

[2] *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408 (2004).

1. Focus Prosecutors on "Hard Core" Cartel Activity

The most important step in prosecuting cartels, and particularly in deterring them, is to make clear to all that anti-cartel enforcement is a priority. While this can be done in myriad ways, the United States chiefly relies on two strategies. First, we have separated criminal from civil enforcement, permitting a group of our attorneys to focus solely on cartels. Second, we have declared anti-cartel enforcement to be the highest priority in an explicit enforcement hierarchy.[3]

As to the first point, the separation of criminal and civil antitrust cases has a long history at the Department of Justice but the separation of attorneys into criminal and civil sections is a relatively recent development. During the first hundred years of U.S. antitrust enforcement, the same attorneys often would investigate both a criminal and a civil theory in the early stages of a case. Even in the early 1990s — and even after the Antitrust Division's attorneys were organized into sections based on industry segments or legal topics — most sections had the ability to bring both criminal and civil cases. This changed in 1994, when the Antitrust Division reorganized to create a separate criminal group. After further refinement, the current criminal enforcement organization of the Antitrust Division is: a front office Deputy for Criminal Enforcement (Scott Hammond); his second in command, the Director for Criminal Enforcement (Marc Siegel), and eight offices dedicated to anti-cartel work and located in Atlanta, Chicago, Cleveland, Dallas, New York, Philadelphia, San Francisco, and Washington, DC. All told, we devote roughly 40% of the Antitrust Division's attorneys to criminal enforcement.

Does this organization make a difference? We believe that it does. People matter, and the creation of a specialized criminal enforcement team allows us to attract, train, and retain people whose passion is criminal enforcement. From the leadership to the line attorneys, our criminal enforcers are immersed in criminal law issues: they share practical advice with other prosecution branches of the government; they work closely with the United States Attorneys responsible for federal criminal enforcement in each U.S. judicial district; they spend time on "details" (temporary duty assignments) as prosecutors in other Department components; they work with and learn investigatory skills from such entities as the Federal Bureau of Investigation; and in short, they live and breathe criminal law. There is a great benefit to the criminal side's targeted focus.[4]

---

[3] *E.g.,* R. Hewitt Pate, Ass't Att'y Gen., U.S. Dep't of Justice, Securing the Benefits of Global Competition, address before the Tokyo America Center 4-6 (September 10, 2004), *at* http://www.usdoj.gov/atr/public/speeches/205389.pdf; *see also* Thomas O. Barnett, Deputy Ass't Att'y Gen., U.S. Dep't of Justice, Antitrust Enforcement Priorities: a Year in Review, address before the Fall Forum of the ABA Section of Antitrust Law 2-3 (November 19, 2004), *at* http://www.usdoj.gov/atr/public/speeches/206455.pdf.

[4] And there is a corresponding benefit to having our civil enforcers specialize in their areas of greatest interest and expertise — we have a Networks & Technology civil section, a

At the same time, the Division carefully delimits its criminal enforcement to focus only on hard core violations. The higher burden of proof in criminal cases (requiring proof "beyond a reasonable doubt," as opposed to the "preponderance of the evidence" standard used in United States civil law) and the narrowness of what criminal enforcement condemns (the fixing of prices, bids, output, and markets, as opposed to the "rule of reason" or monopolization analyses used in civil antitrust law) establish clear, predictable boundaries for business. In addition, this narrow focus helps conserve prosecution and judicial resources by reducing the number of potential cases and also by reducing the complexity of proof: the focus on collusion largely removes the need for the detailed economic testimony common in civil antitrust actions. When criminal cases focus on conduct that has no plausible business justification and that usually occurs in secret, accompanied by preemptive coverups and misrepresentation, defendants cannot reasonably argue that they failed to grasp the illegality of their actions.[5] All of these features — high burdens of proof, well-defined coverage, clear boundaries — allay the potential fears of law-abiding business persons, who can easily determine whether their own conduct will form the basis of a criminal case.[6]

My second point, our decision to make anti-cartel enforcement the highest priority in our antitrust hierarchy, is also a useful signal to industry. To be sure, we continue vigorously to protect competition in the areas of mergers and non-merger civil conduct, but we give special emphasis to cartel enforcement. The antitrust hierarchy also means that we have aligned enforcement priorities with our level of certainty about consumer harm: cartels are always harmful to consumers, whereas mergers and non-merger civil conduct are sometimes harmful but other times will lead to greater efficiencies that enhance consumer welfare. In the areas of mergers and non-merger civil conduct, antitrust enforcers need to account for the possibility of false positives, meaning the assumption of anticompetitive effects where, in fact, none exist or

---

Telecommunications & Media civil section, and an Economic Analysis Group, to name just three of our other enforcement components. A list and brief description of the Antitrust Division's sections and offices can be found at http://www.usdoj.gov/atr/sections.htm.

[5] Cartels often use extreme measures to conceal their existence. The Division has uncovered cover-ups ranging from the creation of bogus trade associations, the use of code names, and sophisticated ruses to keep general counsel in the dark, to hiding incriminating evidence in the attic of a cartel member's grandparent's home, wholesale document destruction, and witness tampering after an investigation begins. Most of these were features of the lysine cartel, which the Division prosecuted in the 1990s. *See generally* http://www.usdoj.gov/atr/cases/archer0.htm; http://www.usdoj.gov/atr/public/press_releases/1996/0988.pdf.

[6] These features also help to persuade courts to impose significant sanctions on cartelists once they have been convicted.

where the potential anticompetitive effects are outweighed by pro-consumer benefits. The antitrust hierarchy helps enforcers to avoid deterring businesses from good, hard competition.

I have heard the view that anti-cartel enforcement is too difficult for agencies that are relatively new to antitrust enforcement and that such agencies should concentrate only upon civil enforcement until they develop experience. I respectfully disagree. It is preferable to begin the anti-cartel process — even if one must learn from a few missteps along the way — than to let cartels function unimpeded, harming consumers. And as for the view that an agency in its early years should concentrate on civil conduct because such conduct is easier to find, this view reminds me of the man who, after a night of drinking, had lost his keys. A policeman finds the man searching unsuccessfully for the keys under a street lamp. The policeman, who also does not find the keys, asks "Are you sure you lost them here?" The man replies "Oh no, I lost them in that dark alley, but the light is much better for searching right here." While conduct subject to civil investigations might be more open and therefore easier to see, the most consumer harm is to be found in the dark alleys of criminal cartels. Moreover, to take the analogy one step further, even though conduct in civil investigations might be easier to spot, discerning whether such conduct is beneficial or harmful to consumer welfare can be difficult, so things in the "light" might not be so clear after all.

2. Treat Cartels as Serious Crimes, and Cartel Members as Criminals

The penalty for cartel behavior should fit the crime. Penalties should reflect the fact that cartels inflict enormous consumer harm[7] with no likelihood of corresponding efficiency gains. Penalties should also take into account the facts that cartelists' motivation is strictly financial and that cartelists are quite capable of making a cost/benefit decision that factors in an occasional discovery and fine as a cost of doing their illegal business. Therefore, cartel penalties not only should be large enough to remove financial incentives, but also should look past financial incentives to affect cartelists directly: cartel penalties should include substantial jail time for responsible individuals. Our investigators have found that nothing in our enforcement arsenal has as great an effect as the threat of substantial incarceration in a United States prison — nothing is a greater deterrent and nothing is a greater incentive for a cartelist, once exposed, to cooperate in the investigation of his co-conspirators.

Penalties are vitally important but so too are other elements of the criminal enforcement arsenal. Cartelists should be subjected to the same investigatory and apprehension practices that

---

[7] *See generally* ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, 2002 REPORT ON THE NATURE AND IMPACT OF HARD CORE CARTELS AND SANCTIONS AGAINST CARTELS UNDER NATIONAL COMPETITION LAWS, *at* http://www.oecd.org/dataoecd/16/20/2081831.pdf, Annex A (collecting estimates of consumer harm from numerous cartels). For example, the consumer harm from the citric acid cartel in the United States alone has been estimated at $100 million.

we apply to other suspected financial felons. This includes the use of the full range of criminal investigatory techniques (from search warrants to the use of informers wearing recording devices), the use of Interpol "Red Notices" and border watches, and extradition. Our criminal enforcement attorneys tell us that it is particularly important to use investigators trained specifically for criminal analysis, who on a weekly basis practice such techniques as criminal interrogation, forensics, and detection of corporate fraud, and who are comfortable operating in an environment in which they must assume that defendants might engage in evasion and the destruction of evidence. Criminal investigations are qualitatively different from most civil investigations, so it is wise to approach them from the outset with the assistance of dedicated criminal investigatory staff. Finally, coordination between international enforcement agencies is a particularly important priority in criminal investigations, due to the difficulty of detection, likelihood of evidence destruction, and risk of flight.

The United States recently strengthened its laws against criminal cartels to reflect some of the principles mentioned here. The Antitrust Criminal Penalty Enhancement and Reform Act of 2004 (ACPERA)[8] more than tripled the maximum jail term available under the Sherman Act, from three years to ten years, and increased the Division's ability to seek substantial criminal fines. In November 2005, the United States Sentencing Commission increased the penalties allowed under the antitrust guideline, United States Sentencing Guidelines § 2R1.1, taking into account both the revised Sherman Act maximum jail sentence and recent experience with the enormous volumes of commerce affected by international cartels.[9] The maximum jail term under § 2R1.1 is now nine years and a longer term is possible via adjustments from other guidelines sections, such as the "role in the offense" enhancement. While § 2R1.1 is not mandatory, courts are required to consider it when rendering judgment against criminal antitrust defendants.[10] More recently, the United States also amended its investigatory statutes to provide wiretap authority in criminal antitrust investigations.[11] Congress's decision to grant that power is a signal that the United States places antitrust crimes on par with such other significant economic crimes as bribery, bank fraud, and mail and wire fraud.

The United States has for some years made it a priority to obtain prison sentences for cartel participants wherever they reside. In our international cartel investigations, we have negotiated plea agreements with 27 foreign nationals to serve time in U.S. prisons. Also on this front, the United States has for the first time moved to extradite a criminal antitrust defendant. In June 2005, in *The Government of the United States of America v. Ian P. Norris,* a United

---

[8] Pub. L. No. 108-237, Title II § 215(a), 118 Stat. 668 (2004), codified as 15 U.S.C. § 1.

[9] The new § 2R1.1 adds enhancements for affected volumes of commerce more than $250 million, $500 million, $1 billion, and $1.5 billion.

[10] *United States v. Booker*, 543 U.S. 220, 245-46 (2005).

[11] 18 U.S.C. § 2516(1)(r).

Kingdom magistrates' court found a British national to be extraditable on a U.S. antitrust charge. On February 24, 2006, the High Court rejected one appeal by the defendant. At the time of this writing, additional appeals are still pending. The United States's efforts in the *Norris* case should send a powerful signal that cartelists will not be allowed to hide behind borders.

3. Provide Amnesty and Amnesty Plus

Although there are many reasons to create amnesty programs, by far the greatest is their value to detection. It is notoriously difficult to discover cartel behavior or, once discovered, to compile sufficient evidence to successfully prosecute cartel members in court. As one past Justice Department official noted, "[t]he most startling characteristic of the multinational cartels we have prosecuted is how cold blooded and bold they are. *** [T]hey [go] to great lengths to cover up their actions — such as using code names with one another, meeting in secret venues around the world, creating false 'covers' — i.e., facially legal justifications — for their meetings, using home phone numbers to contact one another, and giving explicit instructions to destroy any evidence of the conspiracy."[12] To penetrate such elaborate concealment strategies, prosecutors must have a tool to convert cartel members into cooperative witnesses, so that prosecutors can gain access to background information, testimony, and the documents that otherwise might be destroyed. Amnesty programs are such a tool.

Amnesty programs work by changing the cost/benefit calculation of cartelization.[13] To do this properly, an amnesty program requires three elements:

First, there must be severe sanctions for firms and individuals that do not obtain amnesty — not only severe as a general matter, but also severe as a relative matter, in terms of what is lost by not cooperating. An amnesty program must provide significant benefits as compared with the alternative strategies of staying in a cartel or withdrawing but remaining silent. In the United States, the benefits are quite substantial; for example, successful amnesty applicants receive immunity from federal criminal antitrust prosecution and, as the result of ACPERA, are required to pay only single damages in any related private civil lawsuit, as opposed to the treble damages otherwise available under U.S. law.[14] To make this element meaningful, the amnesty program must require significant, material cooperation and must allow prosecutors to terminate amnesty

---

[12] William J. Kolasky, Deputy Ass't Att'y Gen., U.S. Dep't of Justice, DOJ Antitrust Compliance Programs: The Government Perspective, Speech before the PLI Corporate Compliance 2002 Conference 4-5 (July 12, 2002), *at* http://www.usdoj.gov/atr/public/speeches/11534.pdf.

[13] *See generally* Scott Hammond, Cornerstones of an Effective Leniency Program, Address before the ICN Workshop on Leniency Programs (November 23, 2004), *at* http://www.usdoj.gov/atr/public/speeches/206611.pdf.

[14] 15 U.S.C. § 15.

for noncooperation or for continued participation in the cartel.

Second, there must be a genuine fear of detection. Antitrust authorities must have a credible threat to discover cartel behavior even without amnesty applications by cartel members. If firms perceive that the risk of being caught by antitrust authorities is very small, stiff maximum penalties will not be sufficient to deter cartel activity or to cause firms to report their wrongdoing to authorities in exchange for amnesty. Once that credible threat exists, the threat of being turned in by one's fellow corporate cartelists will increase. It is also very helpful to have an individual leniency policy, which creates the potential for an amnesty race as between a corporation and its own culpable employees. The real value and measure of the United States Individual Leniency Program is not in the number of individual applications we receive, but in the number of corporate applications it generates — when corporate management learns that an individual employee has committed cartel conduct, management takes an uncomfortable risk if it does not apply for amnesty immediately.

And *third*, there must be predictability and transparency to the program. The United States program is set forth in two documents — the Corporate Leniency Policy[15] and the Individual Leniency Policy[16] — that allow the program to function almost automatically, which gives potential applicants a high degree of assurance that, if they take the risk of coming forward, they will get the reward. Transparency in the amnesty program has the same benefits as transparency in the entire enforcement program, as I discuss further below.

An amnesty program or other enforcement practices must not give so much leniency that the deterrent effect of cartel penalties is diminished. This is an important principle to keep in mind when evaluating a request for a reduced fine from a "second-in" cooperator, meaning a cartel member who is not the first to expose or cooperate against a cartel but who may still provide valuable additional evidence and assistance. The Antitrust Division's Deputy for Criminal Enforcement, Scott Hammond, recently published a presentation entitled *Measuring the Value of Second-In Cooperation*,[17] in which he discussed the factors that go into assigning value to such cooperation. The United States does not provide absolute fixed discounts for second-in cooperation, as has been adopted, for example, in Japan; while there are benefits to the transparency of a fixed-discount approach, Mr. Hammond argues that those benefits are outweighed by the need for proportionality. Prosecutors are better served where they have the ability to adjust sentencing benefits to the actual amount of cooperation offered by second-in cooperators, which varies widely from case to case and may, in some cases, have no value at all.

---

[15] *At* http://www.usdoj.gov/atr/public/guidelines/0091.pdf (1993).

[16] *At* http://www.usdoj.gov/atr/public/guidelines/0092.pdf (1994).

[17] Scott Hammond, Deputy Ass't Att'y Gen., U.S. Dep't of Justice, address before the 54th Annual Spring Meeting of the American Bar Association (March 29, 2006), *at* http://www.usdoj.gov/atr/public/speeches/215514.pdf.

The discussion of second-in cooperation leads me naturally to a discussion of "Amnesty Plus," which refers to benefits that prosecutors can offer to a cartel member who discloses previously undetected antitrust offenses, involving a cartel different from the one that first brought that cartelist to the prosecutors' attention. Put more simply, Amnesty Plus induces firms that are already under investigation to clean house and report violations in other markets. Again, Mr. Hammond makes a strong case for such a program:

> Here is a remarkable statistic: roughly half of the Division's current international cartel investigations were initiated by evidence obtained as a result of an investigation of a completely separate market. Most of the corporate defendants in international cartel cases are multinational companies selling hundreds of different products. It will come as no surprise then to learn that the Division's experience is that if a company is fixing prices in one market, the chances are good that it is doing so in other markets as well. If an executive readily meets with competitors to allocate customers, then he or she has likely done it before in his or her career. And, if you go back further in time, you will likely find a mentor who taught the colluding executive the tricks of the trade. Armed with this experience, the Division has had great success engaging in a strategy of "cartel profiling" techniques aimed at ferreting out violations that sprout "cartel trees" – where one investigation will eventually give root to prosecutions in a half-dozen or more different markets.[18]

Our practice of rolling one investigation into another is well known in the antitrust community and should strike fear in the heart of cartelists. Through Amnesty Plus, exposure of a single member of a single cartel has the potential to bring a series of cartels tumbling down like a house of cards.

As implemented by the Department of Justice, Amnesty Plus has its own set of rewards and penalties. As to rewards, the cooperating company not only receives the benefits of full amnesty for the newly revealed offense, but also receives a substantial additional discount in its fine for participation in the first conspiracy. The size of the additional discount depends on a number of factors, including: (1) the strength of the evidence provided by the cooperating company in the amnesty product; (2) the potential significance of the uncovered case, measured in such terms as the volume of commerce involved, the geographic scope, and the number of co-conspirator companies and individuals; and (3) the likelihood that the Division would have uncovered the cartel absent the self reporting — for example, if there is little overlap in the corporate participants involved in the original cartel and the Amnesty Plus matter, then the credit for the disclosure likely will be greater. And as to penalties, the Department applies "penalty plus": if a firm under investigation fails to discover and report a second offense, then later finds itself negotiating a plea after the second conduct is discovered by the Division, it should expect significant consequences. If the Division learns that the company discovered the second offense and simply decided not to report it when it had a chance to qualify for Amnesty Plus credit, then

---

[18] *Id.* at 9-10.

the sentencing consequences will be even more severe. Therefore, companies understand that they cannot afford to remain wilfully ignorant by limiting the scope of their internal investigations. The risks to the companies and their executives are too great.

4. Vigorously Prosecute Obstruction of Justice

As I have mentioned, cartelists are criminals and frequently are adept at concealment. True to type, many react to an investigation by actively obstructing the investigations of antitrust prosecutors. The cost/benefit mindset of the cartelist does not evaporate upon learning of an antitrust investigation; instead, the cartelist is likely to evaluate the potential costs of obstruction versus the "benefit" of impeding at least the scope of any resulting lawsuit. Accordingly, antitrust authorities should ensure that the cost side of the equation is severe.

In May 2006, the Cartels Working Group of the International Competition Network released a paper entitled *Obstruction of Justice in Cartel Investigations*.[19] Among its recommendations is that the punishment imposed for impeding a cartel investigation should be on par with punishment for the original offense. I endorse that view. Rather than discuss the problem of obstruction in greater detail here, I commend the report as important reading.

5. Charge Cartels in Conjunction with Other Offenses

Prosecutors do not hesitate to combine charges in most areas of the criminal law; for example, they combine embezzlement charges with claims for illegal wire transfers and evidence destruction, among others. The same approach is appropriate for cartel offenses. The Division has uncovered cartel activity in conjunction with violations of laws against fraud, kickbacks, unfair government contracting, breach of fiduciary duty, and tax evasion, to name just a few. Antitrust prosecutors should have the power and the inclination to pursue a cartelist for each and every criminal violation, both to vindicate such proscriptions on their own merits and to induce cooperation against other members of the cartel.

Leads developed through pursuing a collateral offense often lead to the exposure of a cartel offense, or vice versa. An effective enforcer will not ignore offenses simply because those offenses do not have the word "antitrust" in the title.

6. Provide Transparency

Antitrust enforcers should maximize the transparency and predictability of their enforcement policies. Informing market participants of the rules and likely consequences provides a critical foundation for effective deterrence. Business need to know where the line has

---

[19] *At* http://www.internationalcompetitionnetwork.org/capetown2006/ObstructionPaper-with-cover.pdf.

been drawn so that they have an opportunity to conform their behavior to the law. Further, as discussed above, the success of an amnesty program depends on potential applicants having confidence that they will obtain the benefits of amnesty if they comply with a set of clear requirements. Similar considerations apply when negotiating plea agreements with defendants outside an amnesty program. The benefits of transparency reduce to a simple formula: in the United States's experience, cooperating parties come forward in direct proportion to the predictability and certainty of their treatment following cooperation.

It is generally advisable to establish transparent standards for all aspects of the criminal enforcement process, including the opening of hard core cartel investigations, the decision whether to bring charges, and the calculating and imposing of sanctions. Providing such a roadmap gives clear signals to industry. It also makes prosecutors' jobs easier: not only do they have a clear procedure to follow internally, they also have something to point to when defendants seek unduly favorable settlements or accuse prosecutors of unfairness.

7. Publicize Enforcement Efforts

Finally, it is important for antitrust enforcers to publicize their anti-cartel efforts. Deterrence is preferable to prosecution, whether as a matter of marketplace effects or of enforcement resources. Deterrence requires that violators learn the penalties they face and the rewards available if they confess. The goal is to destabilize cartels through the fear of harsh penalties, the incentive to cooperate and expose co-conspirators, and the recognition that enforcers are predictable and relentless in their approach.

Over time, publicizing enforcement efforts can even change the norm of what is acceptable or tolerated in the marketplace. A chief difficulty faced by any enforcement program — antitrust or otherwise — is the tendency of deviant behavior, left unchecked, to become the norm. If criminal activity is presented as inevitable, some will simply accept it as a cost of doing business and a few will even seek to participate, seeing an opportunity for a share of anticompetitive gains. Aggressive enforcement combined with appropriate publicity helps break this cycle, reminding market participants that they do not have to tolerate the criminals in their midst. If publicity is particularly effective, it can lead both to more complaints and to complaints that are more actionable, as cartel victims and amnesty applicants learn to give enforcers the specific information necessary to make a case. And finally, let us not forget the reality that criminal anti-cartel enforcement is a government function, and government resources are always scarce. Antitrust enforcers should not be shy about publicizing the fact that anti-cartel enforcement is, on a dollar-for-dollar basis, among the best uses of law enforcement resources from the standpoint of consumer welfare.

III. Conclusion

The ultimate goal of cartel enforcement is deterrence, and deterrence only works when consequences are real. To effectively deter cartels, antitrust enforcers must aggressively and

predictably prosecute cartelists and use the full range of weapons in the enforcement arsenal, from fines to jail time to restrictions on international movement. All of these consequences affect the cost/benefit analysis of cartels, whether as a matter of the corporate bottom line or of the individuals who know they may serve time in jail. It is gratifying to us that some cartels avoid violating the law in the United States specifically because of our enforcement policies. This phenomenon illustrates that aggressive cartel enforcement can effectively deter such collusion. Further, as the number of countries with aggressive cartel enforcement programs increases, the effectiveness of each individual program should increase as well. The cartels will have fewer easy targets, a lower expected profit, a greater likelihood of detection, and a higher expected sanction. Accordingly, I encourage the international antitrust community to continue its efforts to expand and improve global cartel enforcement.