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Comment on Antitrust Sanctions

Joseph Harrington

Johns Hopkins University

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Comment on Antitrust Sanctions

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In their thoughtful article, Douglas Ginsburg and Joshua Wright make five key points towards enhancing cartel deterrence through increased penalties: Collusion is under-deterred and there is little risk of over-deterrence; Corporate penalties cannot be raised to a level sufficient to deter collusion; Individual penalties should be used more aggressively, with an emphasis on debarment; Corporate penalties should not be increased; and Corporate penalties should not be assessed when a company was not negligent. This discussion considers each of these points and then concludes with some additional suggestions.

*Joseph Harrington is Professor in the Department of Economics at Johns Hopkins University, where his special field of research is cartels and collusion.

I. Introduction

In their thoughtful article, Douglas Ginsburg and Joshua Wright make five key points towards enhancing cartel deterrence through increased penalties. My discussion will consider each of these points and then conclude with some additional suggestions.

II. Claim #1: Collusion Is Under-deterred and There Is Little Risk of Over-deterrence. My Opinion: Agree

That there is under-deterrence of collusion would seem to be a point that no reasonable person could dispute. Cartels are still forming, in spite of the well-reported successes of leniency programs, the significant increase in government fines, and the continued intensive use of incarceration by the U.S. Department of Justice. Of course, it could be the case that cartels are being formed by managers who are making mistakes. We can never stop all crime as there will always be criminals who are myopic (focus on the gains and dismiss future possible punishments) or are overly confident in their ability to pull off the "perfect crime."

However, it appears that illegal collusion remains profitable and thereby a sensible managerial decision. The most striking piece of evidence is that some cartels are profitable even after being convicted. A notable example is the vitamins cartel which—in spite of billions of dollars in government fines and customer damages—appears to have earned additional profits exceeding those financial penalties.[1] If collusion is profitable (or only mildly unprofitable) even when convicted then surely it is *ex ante* profitable in light of not all cartels being caught.

> IN SHORT, THERE IS UNDER-DETERRENCE AND LITTLE CONCERN ABOUT OVER-DETERRENCE, WHICH MAKES IT COMPELLING TO INCREASE PENALTIES.

Less obvious, though still compelling in my view, is that we should be unconcerned with over-deterrence. Though, with some rare exceptions, all price-fixing is welfare-reducing, enforcement could be excessive if it induced companies to over-invest in monitoring so as to prevent employees from engaging in collusion. However, there is no evidence that firms engage in any monitoring of that sort. Second, if firms were wrongly convicted of collusion then it could lead to over-deterrence if it caused firms to avoid welfare-enhancing activities out of fear that it might lead to a wrongful conviction. For example, recent work has shown that some research joint ventures ("RJVs") are associated with collusion.[2] If cartel enforcement discouraged legitimate use of RJVs then there could be over-deterrence. However, Type I error with cartel investigations is small. There are few convicted cartels for which there was much doubt that there was no collusion, perhaps

because it is a *per se* offense and the standard of evidence is rather high. In short, there is under-deterrence and little concern about over-deterrence, which makes it compelling to increase penalties.

III. Claim #2: Corporate Penalties Cannot Be Raised to a Level Sufficient to Deter Collusion. My Opinion: Agree

Realistically, our best guesstimates (let me not give them as authoritative a term as "estimate") suggest that to push corporate financial penalties to a level that would make collusion unprofitable either exceeds the capacity of many firms to pay or would cause deleterious effects on post-cartel competition by causing some firms to exit or weaken them financially.[3] It could take doubling or tripling financial penalties in the United States and EU to do so. This is not to say that there is still not room to increase corporate penalties, especially since they are not high in many jurisdictions. Rather, the point is that corporate penalties, by themselves, are unlikely to adequately deter collusion in light of realistic probabilities for discovering and convicting cartels.

The authors make this point with the following analysis. Let ρ denote the probability of being caught and convicted in any period (say, a year), π be the additional per period profit from colluding, and γ be the penalty multiple so that the penalty is $\gamma\rho$. Collusion is then unprofitable if and only if:

$$\rho\gamma\pi > \pi \text{ or } \gamma > \frac{1}{\rho}$$

That is, the expected penalty from colluding, $\rho\gamma\pi$, must exceed the additional profit from colluding, π. For example, if $\rho = .2$—so there is a 20 percent chance of a cartel being discovered and convicted in a given year—then the required penalty is five times the size of the additional annual profit generated by collusion. That is a multiple several times the amount currently levied even in the jurisdictions with the most severe corporate penalties. The authors conclude that, for plausible probabilities of penalizing cartels, the penalties must be very high.[4]

This analysis, however, underestimates the deterrence value of penalties because it assumes that a cartel, in order to be penalized, must be caught in the same period that it colluded. In practice, a cartel is liable for the profits it earned in all periods in which it colluded, which means there are multiple opportunities to make a cartel pay for its crimes. Of course, having caught a cartel, the longer one goes back in time, the less likely there is adequate evidence to document such collusion and thereby assess penalties. Also, interest is not usually assessed on past collusive profits. Both of these effects can be captured by weighting past collusive profits less in the calculation of the penalty.

To be more exact, assume that the penalty associated with a period of collusion is reduced by $1 - \beta$ for each period that has transpired since that period, where $0 < \beta < 1$. Let δ be the firm's discount factor, where $0 < \delta < 1$; that is, \$1 tomorrow is worth only \$$\delta$ today. The expected discounted penalty from being caught in the current period is $\rho\gamma\pi$ as calculated in the static analysis of the authors. The expected discounted penalty from being caught in the period after the profits were earned is $\rho(1-\rho)\delta\beta\gamma\pi$, where $\rho(1-\rho)$ is the probability of being caught in that period, $\beta\gamma\pi$ is the depreciated penalty, and it is discounted by δ since firms avoid interest. One can continue in this manner to calculate the expected discounted penalty when caught two periods later and so forth. The full expected penalty associated with colluding is.[5]

$$\rho\gamma\pi + \rho(1-\rho)\delta\beta\gamma\pi + \rho\big((1-\rho)\delta\beta\big)^2\gamma\pi + \rho\big((1-\rho)\delta\beta\big)^3\gamma\pi + \ldots = \frac{\gamma\pi\rho}{1-(1-\rho)\delta\beta}$$

Thus, a dynamic analysis says that deterrence requires γ to satisfy

$$\frac{\gamma\pi\rho}{1-(1-\rho)\delta\beta} > \pi \text{ or } \gamma > \frac{1-(1-\rho)\delta\beta}{\rho}.$$

Since

$$\frac{1}{\rho} > \frac{1-(1-\rho)\delta\beta}{\rho}$$

then the penalty multiple does not have to be as high as the authors' static analysis would suggest in order to make collusion unprofitable. As shown in Table 1 for some plausible parameter values, the difference can be significant. The penalty multiple required to deter is 2 to 3 times smaller in size when using the dynamic measure. However, even with this correction, I do not disagree with their claim that there is under-deterrence and that corporate fines and damages will most likely be insufficient to deter collusion.

Table 1

ρ	δ	β	Static Measure $\frac{1}{\rho}$	Dynamic Measure $\frac{1-(1-\rho)\delta\beta}{\rho}$	Ratio of Static Measure to Dynamic Measure
.1	.9	.8	10.00	3.52	2.84
.15	.9	.8	6.67	2.59	2.58
.2	.9	.8	5.00	2.12	2.36
.15	.9	.9	6.67	2.08	3.21
.15	.9	.7	6.67	3.10	2.15
.15	.95	.8	6.67	2.36	2.83

IV. Claim #3: Individual Penalties Should Be Used More Aggressively, with an Emphasis on Debarment. My Opinion: Agree

If it proves difficult to make collusion unprofitable then an alternative strategy is to disrupt the alignment of managers' interests with those of shareholders. Shareholders (or their representatives in the form of the Board of Directors) strive to design compensation schemes to induce managers to maximize profits which, if collusion is profitable, implicitly means inducing them to collude. Individual penalties focused on managers can counteract those incentives, which is the thrust of the authors' proposal. What makes this line of attack especially compelling is that, in contrast to corporate penalties, individual penalties are modest if not non-existent in many jurisdictions. Hence, there is room for significantly increasing those penalties.

WHERE THE AUTHORS HAVE A UNIQUE TWIST IS TO PUT THE EMPHASIS ON DEBARMENT RATHER THAN FINES AND IMPRISONMENT.

That point is obvious enough. Where the authors have a unique twist is to put the emphasis on debarment rather than fines and imprisonment. Since that is a more debatable point, let me focus upon it. There are several arguments in favor of debarment. First, if it means adding debarment to existing fines and imprisonment then "more is better" if the objective is to deter collusion. Second, as noted by the authors, barring employment as a manager—as opposed to incarceration—avoids prison costs. (However, if debarment is longer than jail sentences then the cost from debarment may be higher when taking into account the foregone social value from having someone in a less productive profession.) Finally, for those jurisdictions for which incarceration is not politically viable—as they do not believe collusion should be a criminal offense—debarment may be a more palatable punishment, but still one that is more severe than individual fines.

In assessing the efficacy of debarment, let me pose three questions. First, is debarment severe enough? Here it depends on what it is a person is barred from doing. If debarment means not being a senior manager in any company then that will clearly be severe for employees who, at the time of price-fixing, were senior managers. For those who were not, it cuts off future promotion prospects but the immediate impact is less. One point relevant to this question is that the authors also propose that the use of debarment can reduce the need for incarceration. However, I would first need to be convinced of the efficacy of debarment before supporting a reduction in jail sentences. On its face, imprisonment seems a harsher punishment than not being able to work as a manager and, in light of the current state of under-deterrence, I would not want to risk reducing the severity of individual penalties.

Second, is debarment practical? I am totally uninformed of the ease with which debarment can be implemented but it does not appear straightforward. Is it unambiguous how one defines "senior manager" or any managerial category? Could convicted employees easily avoid compliance? Will it require a government body to police convicted price-fixers to ensure that they comply? These practical matters need to be addressed.

Third, as with any individual penalty, can debarment be undone by the corporation? If collusion is in shareholders' interests then there is an incentive for them to compensate managers for individual penalties so as to induce them to collude. Such compensation could either be done *ex ante*—before collusion occurs—or *ex post*—after they have been convicted. While there may always be a bonus big enough to induce collusion, the size of it could be sufficiently large that it would be difficult to provide such pay without creating suspicions elsewhere within the firm.

CAN DEBARMENT BE UNDONE BY THE CORPORATION?

Though collusion might generate tens of millions of dollars in additional profit—and thus warrant providing a million dollar bonus to an employee who fixes prices—suppose that an employee makes $100,000 a year. How easily can such a huge bonus be explained to uninvolved superiors? And if the money is "under the table," will it be picked up by company auditors? The point is that bigger penalties—whether fines, jail time, or debarment—make it more difficult to *ex ante* compensate for the risks of price-fixing without leaving a suspicious trail.

In addition, while involved senior managers can provide compensation to lower level employees to induce them to collude, can a CEO be compensated to induce collusion? A Board of Directors will not put themselves at legal risk in knowingly supporting collusion (unless perhaps they have considerable shareholdings). At least for CEOs, I don't think it's obvious that the corporation can undo a rise in individual penalties.

Ex post compensation occurs when an employee has been convicted and penalized. While it can be illegal for a firm to reimburse an employee for fines, there are indirect ways to do so, whether it is promotion or bonuses at a later date. Here, debarment has an advantage in that the lack of continued employment limits the extent to which an employee can be compensated and thereby individual penalties undone. There is also less of an incentive for the company to compensate. As the involved party will not be in the company's employ, the only reasons to do so would be out of some notion of fairness or to incentivize other employees to take personal risks for the benefit of shareholders.

V. Claim #4: Corporate Penalties Should Not Be Increased. My Opinion: Disagree

The authors state:

> "... we think it is questionable, indeed doubtful, whether a $100 million fine—or even a fine of over EUR 1 billion—when imposed upon a corporation because one of its executives fixed prices, serves the primary goal of an antitrust sanction ... When fines are levied against a publicly traded corporation, the ones burdened are consumers and possible shareholders, two groups almost certainly unable to affect the conduct of the corporation."

This is a disturbing claim which, to my knowledge, lacks supportive empirical evidence. What it says is that corporate governance is so ineffective that senior managers are not influenced or affected by what matters to shareholders, for shareholders surely care whether the fine is $100 million or many times larger. Putting this matter another way, suppose we were to replace "fixed prices" with "entered a market." Do we really believe that a manager's entry decision would be uninfluenced by whether entry cost $100 million or $1 billion? While the dysfunctionality of corporate governance is clearly documented, I don't believe it is so messed up that managers are not impacted by the penalties levied by litigation that are directly attributable to their actions.

WHILE THE DYSFUNCTIONALITY OF CORPORATE GOVERNANCE IS CLEARLY DOCUMENTED, I DON'T BELIEVE IT IS SO MESSED UP THAT MANAGERS ARE NOT IMPACTED BY THE PENALTIES LEVIED BY LITIGATION THAT ARE DIRECTLY ATTRIBUTABLE TO THEIR ACTIONS.

In contrast to the authors, I am of the belief that financial penalties levied upon the corporation do influence managerial decisions. One's view on this matter is of particular relevance with regards to the issue of customer damages, as some jurisdictions—such as the EU—are adopting or considering the adoption of customer damages. I am firmly in support of expanding customer damages for three reasons. First, it increases corporate penalties. Second, it compensates those harmed, which is of intrinsic value. And, third, it makes for higher power incentives for customers to discover, report, and sue price-fixers. Let us not forget that private litigation in the United States—even without public prosecution—has always been important for enforcing Section 1 of the Sherman Act.

VI. Claim #5: Corporate Penalties Should Not Be Assessed When a Company Was Not Negligent. My Opinion: Agree in Principle But, in Practice, Disagree.

The authors state:

> "If a company has made a reasonable effort to comply with the antitrust law, and an employee nevertheless engages in price fixing, then it makes no sense to fine the corporation, or to sanction the directors or officers. On the other hand, if the directors or officers were negligent in performing their duty to supervise the employee who actually fixed prices, then they should be held accountable along with the perpetrator."

Unjustly penalizing a corporation would be more of a matter for concern if most episodes of collusion were done for the benefit of a manager rather than shareholders. That is, a manager enhances the performance of his or her division in order to earn bonuses, promotions, and other forms of compensation but, in delivering these rewards, the manager's superiors are deceived as they are unaware of the possibility of corporate penalties. In other words, a manager should not be rewarded as much for raising profit illegally because there is a liability being created for the firm. For that scenario to be relevant, collusion would need to improve measures of the manager's performance, while reducing shareholder wealth. That does not, generally, seem to be the case. Furthermore, many recent cartels involve senior managers—perhaps even the CEO—whose interests are most closely aligned with those of shareholders.

Is it realistic that an outside observer such as a competition authority can determine whether senior management was assiduous in monitoring for collusion so that they and the corporation should not be punished?

Still, even when collusion is profitable, the authors are correct that a corporation that has been diligent in preventing illegal price-fixing should not be punished. It is not only unjust but it reduces the incentives to be diligent. This is why, *in principle*, I agree with the authors. My problem is whether it is practical. Is it realistic that an outside observer such as a competition authority can determine whether senior management was assiduous in monitoring for collusion so that they and the corporation should not be punished? Simply having an antitrust compliance program is inadequate as we

know cartels have occurred with such programs in place. If a corporation were to actually create a "cartel detection task force," what would it do? Tap phones? Follow suspicious employees? Deploy the latest econometric methods to determine whether prices are collusive? It would be easy to document the use of such methods while, at the same time, not being serious about how they are used.

And let us not forget that there are indirect ways to promote price-fixing without coming out and telling lower level employees to fix prices. A senior manager can berate a manager for low profits and promulgate that prices must be stabilized, while never saying the C word. Not assessing corporate penalties will just make collusion more profitable for the firm that can cleverly signal to its employees to collude, while creating the appearances of diligent monitoring. In sum, I don't think it is realistic to achieve a level of confidence that a corporation has been truly diligent enough in preventing price-fixing that they should be left off the hook for penalties.

MY PROPOSAL IS TO DEVELOP POLICIES THAT HEIGHTEN CONCERNS *WITHIN* A FIRM THAT IS PART OF A CARTEL BY CREATING INCENTIVES FOR AN EMPLOYEE TO TURN IN A FELLOW EMPLOYEE.

In concluding this comment, I'd like to make two suggestions along the lines of altering the incentives of individuals. If governments pursue the authors' suggestion of promoting individual penalties then let us make the most out of them by creating "leniency program" effects within a company. As we know, a leniency program can destabilize and uncover cartels by disrupting the common incentive among firms to keep the cartel hidden. A firm may inform the authorities because of its concern that another cartel member will beat them to the competition authority's door and receive leniency.[6] My proposal is to develop policies that heighten concerns *within* a firm that is part of a cartel by creating incentives for an employee to turn in a fellow employee. One way to do so is to give an employee the opportunity for leniency if he or she can deliver evidence implicating a higher-level employee. A senior manager involved in a cartel would not only need to worry about his or her rivals going to the authorities but also their underlings. This would have a secondary benefit in that it would incentivize agents to collect and create evidence—retain documents, secretly tape meetings, etc.—so that they have what is needed to "convict" a higher level manager and acquire leniency for themselves. Such evidence creation and retention has already occurred in some cartels including those in the Australian packaging industry[7] and fine arts auction houses.[8] Knowing that such evidence could get them out of fines, jail, and/or debarment would surely encourage some employees to build a case against their superiors.

Finally, a largely unexploited avenue for discovering collusion is to create incentives for people uninvolved in a cartel, but who have information, to cooperate with the authorities. A whistleblower program offers financial rewards in exchange for delivering evidence of collusion. Since 2005, South Korea has had

such a program in place and, for example, a whistleblower received a reward of around $75,000 for information relating to a cartel among welding rod makers. The United Kingdom's program was launched in March 2008 with rewards of up to £100,000. To my knowledge, other jurisdictions have not instituted whistleblower programs.

Furthermore, the financial incentives provided by existing programs are wholly inadequate. An employee who blows the whistle on his or her company will, most likely, have little future there. Rewards must then provide financial independence if they are to create incentives to report. With government fines in the tens and hundreds of millions of dollars or Euros for large cartels, such rewards are surely feasible in some cases. It has already been suggested by others that the U.S. False Claims Act is a relevant model. In that program a non-government employee can file actions for fraud against federal government contractors and receive a reward up to 25 percent of the government's total recovery; now we're talking serious money!

With the proper rewards, I believe such a program will deliver some cases, for there are documented episodes in which uninvolved employees became suspicious. If a whistleblower program is put in place then a component of an antitrust compliance program should be informing all company employees of its existence. I also like a feature of the U.K. program which is that someone who is involved in the cartel, but not in a significant way, can, in parallel, apply for leniency and rewards.

VII. Conclusion

In concluding, the paper by Douglas Ginsburg and Joshua Wright is a well-reasoned and constructive proposal for enhancing cartel enforcement through the use of individual penalties. I wholly agree with aggressively pursuing this avenue. However, in light of evidence of continued cartel formation and the profitability of collusion, I would add debarment to the existing array of penalties rather than substitute it for other penalties. Incarceration still seems to be the most effective deterrent, and I would promote more widespread use of customer damages. While we have made significant progress in discovering and punishing cartels, cartel activity remains high which means that we should push forward on as many fronts as economists and lawyers can dream up. ◀

1 John M. Connor, *The Great Global Vitamins Conspiracy: Sanctions and Deterrence*, AAI Working Paper 06-02, (Feb. 2006). Consistent with this view is Lande, who argues that damages paid under settlement tend to be single, not treble, in the United States, *see* Robert H. Lande, *Are Antitrust 'Treble' Damages Really Single Damages*, Ohio State L.J., 54, 115-173. (1993).

2 Michelle S. Goeree & Eric Helland, *Do Research Joint Ventures Serve a Collusive Function?* Institute for Empirical Research in Economics, University of Zurich Working Paper Series, ISSN 1424-0459 (May 2010).

3 These deleterious effects need not always arise even when the financial penalty is many times the present value of future profits. If a division of a company has been convicted, then the company may have ample resources to pay the penalty.

4 What is a "plausible" probability is subject to considerable guesswork, as the authors note. They use an estimate of 13-17 percent though this is actually the probability of conviction conditional on being caught, and therefore is surely an over-estimate. Of course, what matters is the subjective probability assigned by those who consider forming a cartel, and who knows what that may be.

5 This calculation implicitly assumes the cartel does not internally collapse but that effect can be captured in the β parameter.

6 Recent experimental evidence supports the hypothesis that the main driver of a leniency application is concern about being pre-empted by a rival firm, rather than being caught by the competition authority; *see* Maria Bigoni, Chloé Le Coq, Sven-Olof Fridolfsson, & Giancarlo Spagnolo, *Trust, Salience, and Deterrence: Evidence from an Antitrust Experiment*, SSE/EFI Working Paper Series in Economics and Finance No. 696, (January 2010).

7 Jim Hodgson, head of Amcor's cardboard packaging division, secretly recorded meetings with his superiors and with employees at rival Visy, all of whom were also involved in the cartel. *Amcor Scammer Still on Payroll*, The Australian, (December 10, 2007).

8 "[Sotheby's CEO Dede Brooks] was startled by the scope of some of [Christie's CEO Christopher] Davidge's papers. 'I was surprised that he'd kept notes of our meetings,' she told me, 'and that he'd *kept* them. I wish I'd known. Then I would *never* have talked to him.'" Christopher Mason, The Art of the Steal (2004). These documents were central to the U.S. case. Christie's received leniency.