

Comments on Remedies

Submitted by
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Antitrust Modernization Commission

Dear Sirs,

I submit these comments as an economist, not an attorney. I respond only to the selected questions that are listed.

As a separate attachment, I provide an Excel spreadsheet that provides formulas to support certain computations I have made. An appendix to these comments provides further information about the spreadsheet model and the equity criterion used within the model.

Thank you for your consideration of these comments.

Sincerely,

Carl Lundgren
Economist and President
Relpromax Antitrust, Inc.

A. Treble Damages

1. Are treble damage awards appropriate in civil antitrust cases? Please support your response, addressing issues such as

- (a) inducements to private enforcement,**
- (b) evidence indicating that treble damage awards have led to either over-deterrence or under-deterrence,**
- (c) the probability of antitrust violations being detected,**
- (d) and how “optimal” deterrence levels can best be determined.**

I respond to the above questions using a simple theoretical model that I constructed and then analyzed using an Excel workbook. The Excel workbook is provided as a separate attachment and is explained further in the Appendix.

(a) In the model I developed, the amount spent by each side on attorneys is a fixed fraction of the expected damage award, in the event that Plaintiff wins. An increase in the multiple (e.g., from single to triple) proportionately increases the amount spent on attorneys. Under this assumption, the probability of private enforcement is not dependent on the size of the multiple. It depends only on the proportion of damages going to attorneys relative to the probability of winning the case.

However, if the multiple is set very high (much higher than triple), so many firms will be deterred from violations that remaining suspects are likely to be innocent. Under such circumstance, the probability that a suspected firm would be found guilty can become so low that private enforcement will not occur unless the government subsidizes it. In the absence of government subsidy, only some of the suspected firms will be privately prosecuted, effectively reducing the expected multiple that would deter antitrust violations.

(b) The theoretical model does not provide empirical evidence. However, if empirical evidence is provided by others, it may be possible to adapt the model to such evidence.

(c) In the theoretical model, the probability of a particular violation being detected is not affected by the multiple. However, a higher multiple deters more violations. Hence, the remaining violations (smaller in number) are less likely to be detected. This is because increasing the multiple deters those violations which are most likely to be detected.

(d) How one determines the optimal multiple depends, in part, on whether the goal of antitrust law is “efficiency” or “equity.” If the goal is “efficiency” (e.g., as defined by Bork, Posner, and most economists), a somewhat different multiple may be indicated than if the goal is “equity” (e.g., as defined by Lande, most attorneys, and possibly the courts--see Kirkwood).

(e) General comments. In addition to deterrence, the antitrust law also provides for the possibility of remedies. If my model were altered to allow the damage multiple to affect the probability of prosecutions, the effect of the multiple on the likelihood of remedies would also be a factor to consider.

The actual payment of multiple damages depends on the ability of business firms actually to pay such damages. If damage payments are not simply passed onto consumers, then there must be sufficient capital (excluding monopoly profits) already owned by the firms to support such payments. Multiple damages are supportable only if

they are “small” relative to firms’ capital, otherwise the firms would go bankrupt. Accordingly, many “large” violations of the antitrust laws are not deterrable through civil penalties alone.

This suggests the need to go beyond civil penalties. These could be criminal penalties (fines or imprisonment for business managers) or pro-active remedies before the discovery of antitrust violations. One such pro-active remedy is the use of relative profit maximizing incentives to prevent collusion. (See Lundgren, 1996)

B. Prejudgment Interest

1. Should successful antitrust plaintiffs be awarded pre-complaint interest, cost of capital, or opportunity cost damages?

Assuming that damages are correctly computed, there should be some payment of “interest” or “cost of capital” from the date of actual damages. In regulatory economic analyses of new rules and regulations, the Executive Branch of the federal government typically assumes a *real* interest rate of 7%. Using a 7% *real* interest rate means that the *nominal* interest rate would be 7% plus the rate of inflation.

In economics, all costs are “opportunity costs.” Both out-of-pocket expenses and lost investment opportunities can be opportunity costs of an illegal act. It is conceivable, in some circumstances, that a plaintiff may be able to prove loss of special investment opportunities that might have provided a rate of return substantially higher than the usual cost of capital. Absent proof of special circumstances, the courts should award interest based on the usual cost of capital.

I do not know what standards are available for judicial judgments. It is unlikely that Congress would set the standard for antitrust cases differently from that for other civil cases. This does not mean that the AMC should express no opinion, if the AMC has a well-formed opinion based on economic reasoning.

E. Remedies Available to the Federal Government

1. (a) Should DOJ and/or the FTC have statutory authority to impose civil fines for substantive antitrust violations?

(b) If so, in what circumstances and what types of cases should such fines be available?

(c) If DOJ and/or the FTC are given such authority, how, if at all, should it affect the availability of damages awarded to private plaintiffs?

(a) No strong opinion. As a matter of equity, consumers and taxpayers are mostly interchangeable. If DOJ or FTC impose fines, this is equivalent to consumers receiving a damage award. As a matter of equity, government’s share of a damage award can be made proportional to the resources government puts into pursuing antitrust cases (as compared with private plaintiffs).

(b) If implemented, a system of government fines can be applied to any antitrust case.

(c) The optimal damage award is not affected by whether consumers or government collects it. If government collects more, private plaintiffs should collect less, dollar for dollar. A condition for government to collect more is that government is investing more resources in the prosecution of antitrust cases.

G. Indirect Purchaser Litigation

3. Does *Illinois Brick*'s refusal to provide indirect purchasers with a right of recovery under federal antitrust law serve or disserve federal antitrust policies, such as promoting optimal enforcement, providing redress to victims of antitrust violations, preventing multiple awards against a defendant, and avoiding undue complexity in damage calculations?

In many circumstances, indirect purchasers may be the main victims of antitrust misconduct. For example, suppose that direct purchasers are mainly intermediaries who resell a product to the ultimate consumer. Exercise of monopoly power raises price and restricts sales. The result may be a significant price increase for the consumers who purchase indirectly, but only a minor reduction in profit for the intermediaries, who often pass through their costs with compensating price rises of their own.

From an equity standpoint, it makes more sense to compensate the ultimate consumer than to compensate the intermediary. In such circumstances, allowing the indirect purchaser to collect the whole amount of the damages, both to itself and the ultimate consumer, is essentially a windfall profit to the intermediary. Such windfall profit is inequitable when there is no transfer of an equitable proportion of the damage award to the indirect purchaser.

Obviously, equity does not support requiring a defendant to pay the same damage twice. Hence, if there is \$1,000,000 in damages, and if 80% of the damage is borne by indirect purchasers, one should not require that \$1,000,000 in single damages be paid to both indirect and direct purchasers. Instead, the indirect purchasers should get \$800,000 and the direct purchasers should get \$200,000. Whether the single damages should be tripled, or otherwise multiplied, is a separate issue.

G. 4. ...Assuming both direct and indirect purchaser suits continue to exist, what procedural mechanisms should Congress and the courts adopt to facilitate consolidation of antitrust actions by indirect and direct purchasers?

I see no economic reason why direct and indirect purchasers (or even the government) cannot be part of the same consolidated antitrust action.

Appendix. Description of Spreadsheet Model and Some Results Concerning Whether and How Much to Multiply Antitrust Damage Awards.

In the simple model I constructed, the damage award to consumers (in the event plaintiffs win) is $D = m(t+d)$, where D = Damage award, m = multiplier of actual damages (e.g., $m=3$ for triple damages), t = transfer of income from consumers to producers due to market power, and d = deadweight loss due to market power. The cause of the market power is not specified, other than being illegal under the antitrust laws.

In the event a trial occurs, each side spends the same amount on lawyers, and bears its own trial costs. This amount is a fixed percentage (f) of the damage award (D) to consumers if consumers win. The total deadweight loss from lawyers is therefore $fD+fD = 2fD$. In the event trial occurs, the court applies the law with perfect accuracy. Before trial, a business always knows if it broke the law; consumers merely infer a probability that a business broke the law.

In the absence of trial, a guilty business gains t , while consumers gain 0. In the event of trial, a guilty business gains $t-D-fD$ (normally a loss), while consumers gain $D-fD$. In the absence of trial, an innocent business gains 0, while consumers gain $t+d$. In the event of trial an innocent business gains $-fD$ (a loss), while consumers gain $t+d-fD$.

Consumers initiate a trial only if the expected consumer gain from trial exceeds the expected gain (0) from no trial. This requires an estimate of the probability that a business is guilty, given that it is suspected of an antitrust violation— $P(G|S)$. The probability of a business being innocent is $P(I|S) = 1 - P(G|S)$. The consumer initiates a trial only if $P(G|S)D > fD$, which reduces to $P(G|S) > f$. From the consumers' standpoint, the model assumes that $P(G|S)$ is the same for all suspected firms.

There is a trial only if a business is suspected of committing an antitrust violation. If the business is not suspected, there is no trial. The business commits a violation only if the expected profit from the violation exceeds the expected profit from no violation; otherwise, the business is deterred and commits no violation. The model assumes that different guilty firms have different probability estimates for the chances of being suspected of an antitrust violation. Hence, $P_f(S|G)$ and $P_f(N|G) = 1 - P_f(S|G)$ may vary for different firms, f . The model assumes that all innocent firms have the same probability estimate for being suspected of a violation. Hence, $P(S|I)$ and $P(N|I) = 1 - P(S|I)$ is the same for all firms. It is also assumed that $P_f(S|G) \geq P(S|I)$.

The model assumes that consumers and businesses have rational expectations concerning probability estimates. To maintain consistency among calculated probabilities, a matrix of probabilities and number of firms is used. An example using four types of 16 firms is shown below:

Type	Total #	# S	# N	$P(S G)$	$P(N G)$
1	4	1	3	$\frac{1}{4}$	$\frac{3}{4}$
2	4	2	2	$\frac{1}{2}$	$\frac{1}{2}$
3	4	3	1	$\frac{3}{4}$	$\frac{1}{4}$
4	4	4	0	1	0
				$P(S I)$	$P(N I)$
Innocent	-	-	-	$\frac{1}{4}$	$\frac{3}{4}$

Because the Type 1 firms are hardest to catch, they are the hardest to deter. The Type 4 firms are easiest to deter because the Type 4 firms are easiest to catch. Suppose that the

multiple, m , is set high enough that Type 3 and 4 firms are deterred, but Types 1 and 2 firms are not deterred. In that case, consumers rationally compute the following matrix for numbers of innocent and guilty firms, and compute the following probabilities:

	Suspected	Not Suspected	
Guilty	3	5	$P(G S) = 3/5 = 60\%$
Innocent	2	6	$P(I S) = 2/5 = 40\%$
Total	5	11	

The spreadsheet model has 101 types of firm, where the probability of being suspected when guilty, $P(S|G)$, ranges smoothly between 10% and 100%.

The spreadsheet computes the minimum value for m needed to support deterrence for each type of firm. This range of m 's is examined for the equilibria they produce. The "efficient" equilibrium is determined as the equilibrium that achieves the maximum total rewards, which is defined as the sum of consumer rewards and business rewards. This concept is equivalent to "efficiency" (or more precisely, maximization of total surplus) as defined by Bork, Posner, and many economists. This concept of "efficiency" is substantially narrower than the more general concept of "Pareto efficiency" which has greater support among economists.

The spreadsheet model also computes the "equitable" equilibrium. This is not a usual calculation that economists make, so I will explain further. The "equitable" equilibrium attempts to maximize the total amount of equitably or legitimately acquired wealth. By contrast, the "efficient" equilibrium simply attempts to maximize the total amount of wealth, without regard to whether it was legitimately or equitably acquired. The "equitable" equilibrium is concerned with equity in the distribution of income, as well as with efficiency in the production of income.

To calculate the equitable equilibrium, we must first classify income or wealth according to whether or not it was equitably or legitimately acquired. For example, if two men earn \$100, but one of the two men steals \$20 from the other, we end up with one man who holds \$80 and one man who holds \$120. "Efficiency" would ignore that one man stole from the other and account the total as \$200. "Equity" would note that the man who stole \$20 does not equitably hold that portion.

We can compute the equitable distribution for both men as the minimum of the actual amount he has and the just amount he should have. The victim of thievery deserves \$100, but only has \$80. Therefore, the victim's legitimate amount is $\min(\$100, \$80) = \$80$. The thief also deserves \$100, but actually has \$120. The thief's legitimate amount is $\min(\$100, \$120) = \$100$. The total equitable amount is $\$80 + \$100 = \$180$. This is \$20 less than the amount of \$200.

For antitrust purposes, the equity standard is that there be competition and/or that there be no antitrust violations. If income is obtained in violation of these standards, it is not counted as legitimate income. For purposes of calculating legitimate income in the spreadsheets, I divided society into two aggregate groups, consumers and business. This means that no distinction is made concerning the equity of gains and losses to individual consumers and individual businesses. Only the equity of gains or losses to consumers in the aggregate or business in the aggregate is computed. The actual formulas used may be found in the Excel workbook.

I inputted various parameter values into the spreadsheet model. Usually, but not always, the equity model calculates a higher optimal value for m than the efficiency

model. For some (but not most) parameters, the most efficient multiple for m is zero—there should be no enforcement of the antitrust laws. This is never true for the equity model. In the equity model, it normally pays to incur deadweight losses to return income to its rightful owners. In the efficiency model, one would never incur deadweight losses to redistribute income.

The equity model clearly supports triple damages. The efficiency model does not clearly oppose triple damages, and often supports it. I see no support from the spreadsheet model for advocating a switch from triple damages to single damages.

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