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CHAPTER 7

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ANTITRUST SETTLEMENTS

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7.1. INTRODUCTION

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ANTITRUST litigation has been going through a growth spurt in the past several decades as the result of expanding public enforcement worldwide, active private enforcement in the United States, and initial forays into private enforcement in other areas of the world. Given the large costs to the parties flowing from antitrust trials, it is not surprising that a vast majority of both private and public enforcement actions are resolved through settlement. In this chapter, I will sketch out the conceptual framework underlying the settlement-trial decision. I will also describe some of the empirical evidence on the settlement of both public and private antitrust cases, and in the process I will offer commentary on a number of important policy issues.

7.2. PRIVATE LITIGATION

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7.2.1. The Settlement-Trial Decision

There is a massive and still growing literature on the decision to settle litigation rather than to go to trial.[1] While that literature is not antitrust specific, it is nevertheless highly

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[1] Settlement decisions have been modeled using both cooperative game theory (with a focus on the Nash bargaining model) and noncooperative game theory. See, for example, Priest and Klein (1984). For an overview review of the literature, see Cooter and Rubinfeld (1989), Daughety (2000), Hay and Spier (1998), Spier (2007), and Daughety and Reinganum (2005).

instructive. The literature tells us that settlement decisions can be affected by a host of factors, including, but not limited to, (1) the available savings in litigation costs surplus flowing from settlement (the greater the savings, the more likely a case will settle); (2) the risk aversion of the parties (the more risk averse the parties, the more likely they will settle; (3) the perceived likelihood of success (the more pessimistic the plaintiff relative to the defendant, the greater the likelihood of settlement); and (4) reputational effects of external benefits flowing from the case (the greater the external benefits from a trial victory, the less likely the case will settle).

Furthermore, with respect to litigation involving two parties, the literature tells us that the sequencing of negotiations can make a difference. For example, which party makes the last offer can affect the likelihood of settlement and the settlement outcome.[2] A similar set of incentives applies to antitrust cases that have been filed. The settlement-trial decision is further complicated when the defendant is likely to face a sequence of distinct trials by multiple plaintiffs. A recent paper by Bernhardt and Xu (2012) highlights the additional complications that are raised in this context. In this situation, the parties use the outcome of the initial trial to update their priors concerning future trial prospects. In single trials, pretrial costs are sunk when the settlement-trial decision is made, whereas in sequential trials, pretrial costs of future litigation are likely to affect settlement decisions before those pretrial expenditures are made.

It is not unusual for antitrust settlements to include most-favored-nation ("MFN") clauses; these ensure that certain terms of future settlements will apply retroactively to the initial settlement. Spier (2003) has provided an insightful analysis of MFNs in the context of a single defendant facing multiple plaintiffs. In her framework, MFNs discourage the defendant from raising settlement offers over time; this encourages early settlement and reduces the costs associated with delay. Because MFNs have the effect of increasing the bargaining power of defendants, they generally benefit defendants.[3] However, as Spier points out, MFNs can in some circumstances also benefit plaintiffs that have some bargaining power in the initial settlement negotiations. There is a downside, however. The risk with MFNs is that they could discourage future settlements by reducing and sometimes eliminating the bargaining range.[4]

It is often the case that the terms of antitrust settlements in private litigation are kept confidential, through court orders or through private agreements. On their face, secret settlements are troubling; they keep valuable information from the public—information that could inform the decisions of future litigants. The externalities that flow from

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[2] The outcomes will differ in a world of asymmetric information, depending on whether the informed or uninformed party makes the settlement offer. See, for example, Reinganum and Wilde (1986), Schweizer (1989), Spier (1992, 1997). For an analysis involving multiple parties, see Daughety and Reinganum (2005).

[3] Spier's analysis could be adapted to consider a single plaintiff facing multiple defendants. There, an MFN would discourage the plaintiff from *reducing* settlement offers over time, and would increase the bargaining power of the plaintiff.

[4] The possibility of applying MFNs to trial outcomes as well as settlements raising intriguing additional issues, as Spier points out in her discussion of New Mexico's MFN with Microsoft in the state attorneys general cases against Microsoft.

secret settlements have been analyzed by a number of authors. To pick one example, Daughety and Reinganum (2002) point to the fact that secret settlements plaintiffs to learn about the likely success of future actions. They note that current plaintiffs' may be able to extra rents from defendants if they are willing to reach such agreements. Furthermore, secret settlements may reduce over antitrust deterrence. If this means a reduction in suits with little or no merit, it could be a plus; otherwise there is a strong case to be made for a commitment by firms to settle future antitrust disputes in the open.

While the theoretical literature on litigation settlement has direct implications for the analysis of the antitrust cases generally, the implications are particularly noteworthy with respect to cases that have relatively large stakes (for example, in large damages in private cases or significant injunctive remedies in cases brought by the competition authorities).

7.2.2. Single versus Treble Damages

A constructive example of how the incentives to settle antitrust litigation can be affected by the outstanding legal rules is given in the analysis of Perloff and Rubinfeld (1988). The authors consider the implications of a changing legal regime that moves from treble damages to single damages. This remains an issue of some import today, because companies that receive amnesty from federal criminal price fixing under the DOJ's leniency program are limited to single damages in any follow-on civil litigation. If we want to understand the implications of the leniency program, one important component of our analysis will be an evaluation of the move from treble to single damages.

To begin the analysis, assume that the parties are risk neutral and that both have the same expectations about the likely trial outcome. Then, the case will be likely to settle, unless the parties diverge on the appropriate split of the available bargaining surplus (the savings in trial costs). A move from treble to single damages is likely to reduce the bargaining surplus since the lower stakes will likely reduce each party's expenditure at trial.

In any antitrust settlement context, the bargaining process will be further complicated by whether the party making the last offer is relatively informed or uninformed about the likely outcome. If the informed party makes the last offer, strategy can be important because the informed party can use its offer as a signaling device given that it has some knowledge about the likely behavioral response of the uninformed party.

The settlement probability can also be increased to the extent that the plaintiff is relatively pessimistic about its chances of success relative to the defendant's view. This divergence of perspectives will increase the bargaining surplus (or equivalently, the bargaining range). The move from treble to single damages is also likely to reduce the bargaining surplus here because it will reduce both parties' subjective views as to the plaintiff's expected reward from going to trial.

Furthermore, settlement becomes more likely if the defendant stands to lose more than the plaintiff will gain (perhaps in terms of litigation brought by other plaintiffs).

Given that "reputation" is likely to be important in antitrust cases brought against successful businesses, it would not be surprising not only that a high proportion of cases settling, but that defendants will be relatively successful when the remaining cases do go to trial. Bourjade, Rey, and Seabright (2009) develop this concept in a theoretical framework, pointing out that "if firms can settle out of court, and if the Courts are reasonably reliable at establishing the truth of allegations, it should be the violators who settle and the innocent firms that refuse." This prediction is borne out in the empirical study of Perloff and Rubinfeld, who showed a very high settlement rate (86 percent) and over two-thirds of all tried cases won by defendants.

Finally, as mentioned previously, cases are more likely to settle, the greater the risk aversion of the parties. It might be thought at first blush that businesses involved in antitrust litigation are likely to be risk neutral. However, not all antitrust cases involve individual plaintiffs and there is no certainty that managers of businesses will act in a risk-neutral manner.[5] If risk aversion increases with the magnitude of the losses involved, a move from treble to single damages will reduce the amount of risk and therefore, other things the same, increase the likelihood that cases will go to trial.

Settlement decisions in cases that follow-on government suits add an additional theoretical complexity to the basic theoretical model just described. In one important contribution, Briggs, Huryn, and McBridge (1996) point out that "in equilibrium, a defendant can probabilistically signal a strong case by not offering to settle. A violator's incentive to signal a strong case to deter a treble damage suit forces the government to pursue more trials than it would otherwise. Private plaintiffs are more likely to settle following a government suit than otherwise, but they win a trial with the same probability regardless of whether there was a previous government suit. Data on private suits support the latter two contentions."

The key to any empirical analysis of antitrust settlements is to understand that there is a substantial random element in any settlement bargaining. As a result, not all cases in which there is a bargaining surplus will settle and not all cases in which there is no surplus will go to trial. What are the implications of the stochastic nature of the bargaining process for the evaluation of a leniency program that replaces treble damages with single damages? The basic model of litigation predicts that the settlement probability will increase if the losses expected by defendants are less than the gains expected by plaintiffs for reputational or other reasons (if the defendants have a reputation at stake, they will take the case to trial), or if a reduction in the damage multiplier results in a corresponding increase in the costs of trial.

Using data developed in a project sponsored by Georgetown Law School, Perloff and Rubinfeld (table 4.3) found that when plaintiffs are large firms, cases are much more likely to settle (90.9 percent) than when the plaintiff is another type of organization

[5] Koku and Qureshi (2006) compare news of settlements of cases involving NYSE and NASDQ listings. They find that settlement is beneficial to defendant firms (the settlements stop the loss of reputation that could result from an adverse trial outcome), but not to the plaintiff firms (whose stock prices do not change).

(54.5 percent). Apart from this large-firm effect, however, the authors found little relationship between size and settlement rates. The type of litigation also had an effect on settlement rates, with settlement rates being highest when the plaintiff is a competitor, supplier, or buyer and lowest when the plaintiff is a licensee, employee, or dealer. Surprisingly, price-fixing cases and refusals to deal have relatively low rates of settlement, perhaps due the relative optimistic of the plaintiffs with respect to potential damage recoveries.

The authors also found that defendants tend to have more at stake than plaintiffs. As a result, defendants settle cases that might be seen as close. The effect of this is to suggest that a move to single damages means some of the cases will involve lower stakes for the defendant and will be tried rather than settled.[6] Ultimately the effect of a reduction in the damage multiplier depends on the distribution of settlement gaps measured across a wide range of cases. For those cases in which the bargaining surplus is initially large (perhaps because the plaintiff is relatively optimistic about the trial outcome), the probability of settlement is likely to fall when the damage multiplier is reduced. However, for those cases in which the surplus is negative, the probability of settlement will increase as the multiplier falls. Of course, changes in expected trial costs will affect this calculus as well. If trial costs are reduced, cases that settled before the multiplier was reduced are more likely to settle, while cases that did not settle become even less likely to settle. In Perloff and Rubinfeld's simulations, the average probability of settlement was found to fall by 8.5 percent when the damage multiplier was reduced from 3 to 1 when measured over all cases, but by only 2.3 percent for class action cases. Perhaps surprisingly, these results suggest a potentially overlooked cost of the DOJ's leniency program—an increase in the percentage of cases that go to trial and consequently an increase in the cost of private litigation.

7.2.3. The Empirical Framework

A number of authors have evaluated settlement probabilities using stochastic models of settlement behavior in private litigation. Relying on a long and compelling literature on settlement in tort litigation, Perloff, Rubinfeld, and Ruud (1996) have devised a model that is directed towards antitrust litigation specifically. Their model differs from much of the literature in specifically accounting for risk aversion and for the endogeneity of the settlement-trial process. In particular, expectations about trial outcomes that drive the settlement decision are estimated from a separate, but related, model of trial outcomes.

Understanding the stochastic nature of settlement bargaining is essential if one is to make policy evaluations of the settlement implications of changes in various legal rules (fee shifting, possibilities for appeal, etc.). The framework used by Perloff, Rubinfeld, and Ruud (1996) provides a useful overview of the issues.[7]

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[6] Many of these conclusions were supported by a probit analysis of settlement rates.

[7] A similar, but somewhat less general framework was used in the empirical analysis of Fournier and Zuehlke (1999).

The expected utilities of the plaintiff and the defendant are assumed to depend only on the mean and the variance of their incomes y_p and y_d; for simplicity, I have dropped the subscripts $j = p$ or d, which would distinguish between the plaintiff and the defendant:

$$EU(y) = \mu - \delta\sigma^2, \tag{7.1}$$

where δ reflects the degree of risk aversion for the plaintiff and the defendant.

Now, let P_p and P_d represent the parties' expectations as to the likelihood that the plaintiff will win at trial and let D_p and D_d represent the corresponding subjective estimates of damages. Finally, let c_p and c_d be the parties' respective subjective estimate of expenditures at trial. Then, the defendant's expected loss from going to trial is

$$P_d D_d + \delta_d \sigma^2 D_d^2 + c_d, \tag{7.2}$$

which is the defendant's expected utility loss at trial plus the defendant's trial expenditures. Similarly, the plaintiff's expected benefit from going to trial is given by

$$P_p D_p - \delta_p \sigma^2 D_p^2 - c_p. \tag{7.3}$$

The available bargaining surplus, S, to the parties from settling is the difference between the defendant's expected loss at trial and the plaintiff's expected gain.

$$S = \left(P_d D_d - P_p D_p\right) + \left(\delta_d D_d^2 + \delta_p D_p^2\right)\sigma^2 + \left(c_p + c_d\right)$$
$$= \alpha + \gamma\sigma^2 + \left(c_p + c_d\right). \tag{7.4}$$

We can see that the bargaining surplus will be higher, (i) the more pessimistic the defendant is about the likely success of the plaintiff's case relative to the plaintiff (the higher is α); (ii) the more uncertain the trial outcome, the more risk averse the parties (the higher is γ); and (iii) the greater the costs of going to trial.

The stochastic model of antitrust settlements assumes that the probability of settlement, P_s, is an increasing function of the magnitude of the bargaining surplus: the greater the surplus, the greater the mutual gains if a settlement agreement is reached. However, the model also reflects the possibility that settlement may not occur even though there is a positive gain from settling. If the model is to be estimated using a probit model, the empirical model to be specified would be given as

$$P_s = \Phi(S) = \Phi\left(\alpha + \gamma\sigma^2 + \left(c_p + c_d\right)\right), \tag{7.5}$$

where Φ is the cumulative normal distribution function.

The first term in the probit equation is endogenous, since it reflects the parties' expectations about trial outcomes, which in turn will be a function of actual trial outcomes of similar antitrust cases in the past. Perloff, Rubinfeld, and Ruud estimate a two-equation model, in which (i) the likely success at trial is estimated in an initial equation (not spelled out here) and (ii) equation (7.5) estimates parameters that rely on the estimated probabilities of trial success.

What is noteworthy here is that the model predicts that settlements are more likely when the defendant has more at stake than the plaintiff (possibly due to an adverse reputational effect), that is, when $\left(D_d > D_p\right)$. In contrast, if the defendant believes that settlement gives a bad signal, the defendant might go to trial to show its resolve $\left(D_d < D_p\right)$.

Similarly, if the coefficient on the variance terms in equation (7.5) is positive, the case is more likely to settle. This would be the case, for example, if the parties are collectively risk averse. Recall that for a binomial model, the variance is greatest when the probability of success is .5. It follows that, other things equal, any change in the rules of evidence that causes the probability that the plaintiff will win at trial to move away from .5 will increase the variance of the trial outcome and correspondingly increase the probability of trial. Conversely, anything that moves the probability towards .5 will decrease the probability of trial.

The application of this model to the Georgetown database led to some powerful results. The authors found that a higher perceived probability of plaintiff success increases the likelihood of settlement, other things the same, as does the increased risk that flows from uncertain trial outcomes. Furthermore, plaintiffs fare substantially better off when they demand a jury trial than a judge trial. The probability of winning at trial increases by 40 percent and the settlement probability increases even more. In addition, any policy that increases the probability that the plaintiff will be successful at trial from the mean of about 31 percent will increase the variance by about .37 percent. As a result, a 1 percent increase in the probability of plaintiff's success will increase the probability of settlement by .13 percent.

The relatively small magnitude of this impact should not be underestimated. Risk does matter, and the costs of legal change can be very substantial. To put this in a somewhat stark form, policy changes (such as those affecting discovery rules) that are harmful to plaintiffs are likely to increase the likelihood that cases will be trial as well as the corresponding trial costs.[8] A similar conclusion applies to the earlier detrebling discussion. A reduction in the damage multiplier will increase the fraction of cases that are litigated substantially.

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[8] In one interesting empirical study, Hersch (2006) found that cases in which a jury trial was demanded were more likely to settle than judge-tried cases. The evidence suggested (but did not prove) that jury-demanded cases were weaker, which presumably reduced the plaintiffs' settlement demands.

7.2.4. Attorney Incentives

Many of the largest private antitrust cases have been brought as class action cases in which the plaintiffs have claimed overcharge damages. Settlement outcomes, like the trial outcomes that they shadow, have raised a number of important normative policy issues. First, overcharges do not measure the actual harm suffered by price fixing, since they fail to account for deadweight loss—the harm to those who would have purchased the product at competitive prices, but opted not to purchase at monopoly prices.[9] It follows that the decisions made by class action attorneys to bring cases and to choose between settlement and trial may not be closely aligned with the public interest.[10]

Second, attorneys' fees in class settlements are determined by the court. What is the most appropriate basis for determining those fee arrangements? Awards in nonclass cases have typically been based on the percentage method, with one-third a commonly cited fraction. However, in class-action cases, the lodestar method has been frequently utilized. Under lodestar, the court awards reasonable attorney fees, along with a multiple (typically from one to three) that is meant to reward the risk taken by the successful plaintiff. The best empirical evidence on fee arrangements is the Eisenberg-Miller (2004) study of class action settlements generally, of which antitrust cases represented a modest subset. The authors find that the mean percentage award is 21.9 percent, and that there is a sliding scale, with fees constituting a lower percentage of the client's recovery as the recovery increases.

Relying on the fact that their model explains percentage awards better than the lodestar method and their belief that the time and expense of doing a lodestar calculation may be wasteful, the authors suggest that courts utilize a variant of the percentage method.[11] This view is supported by the work of Helland and Klick (2006), who find (using data from the Federal Judicial Center) that lawyers facing a lodestar calculation delay settlement to accumulate more hours compared to cases in which courts use a percentage fee method for compensating attorneys.[12]

Third, many antitrust cases in the United States are brought by attorneys under contingent fee arrangements. It is been commonly thought that contingent fees give plaintiff attorneys an excessive motive, relative to the interest of the client, to settle the case. As the argument goes, if the case is settled, the attorney obtains his or her share of the settlement without having to invest the time that would be required if the case were to go to trial. In addition, it has been thought that the settlement amount will be less than the

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[9] For a basic review of these issues, see Hovenkamp (1999, ch. 1).

[10] For a recent view of the determination of optimal antitrust sanctions and a review of the literature, see Ginsburg and Wright (2010).

[11] The disadvantages of doing the lodestar method may be overstated, since there are firms that specialize in monitoring and evaluate lawyers' hours and fees.

[12] For a discussion of the fairness issues that are raised by class action settlements generally, see Macey and Miller (2009).

amount that would be in the ultimate interest of the client. This argument was based on the intuition that by making a low settlement demand, the attorney can encourage the defendant to accept the settlement.

Polinsky and Rubinfeld (2002) show that these intuitions can be misleading. Specifically, when compared to a benchmark in which the client's welfare if maximized, a contingent fee arrangement can lead attorneys to settle cases less often and for a higher amount. The reason for the misleading intuition is that it often fails to account for the fact that if the attorney takes the case to trial, the attorney will work fewer hours than is in the client's interest. Incorporating this possibility, we conclude that attorneys' settlement demands can be higher than the client would like, which would lead to too few settlements. Because the conventional analysis ignores the lower-trial-effort effect, it leads to the conclusion that attorneys will necessarily settle too often and at too low an amount. Ultimately, both the direction and the magnitude of the effect of contingent fees on settlement choices and amounts are indeterminate.

Fourth, a common practice has been to award injured consumers coupons rather than cash. To what extent are these coupon remedies inefficient? Polinsky and Rubinfeld (2007) have suggested one procompetitive justification—in certain cases the offer of a choice between cash and coupons can create a sorting mechanism that distinguishes those who were in fact injured and those that were not. Despite this exceptional instance, there is little disagreement among a range of scholars that coupon remedies are likely to be inefficient. The primary source of inefficiency lies in the fact that attorneys' fees are often based on the face value of the coupons, when, in fact, the coupon redemption rate is often quite low. This will lead to undercompensating of plaintiffs and underdeterrence.

Polinsky and Rubinfeld point to an additional inefficiency. Coupons can distort consumption decisions. To paraphrase their argument, assume that demand for a product is stochastic, and assume further that demand in the remedy period is substantially less than demand in the period in which the antitrust injury occurred. The consumer will have a surplus of coupons and will likely buy an excessive amount of the product. (This assumes that coupons are not readily transferable.) In this case, the coupon remedy has the effect of lowering the price of the good below the competitive price. The authors show that the deadweight loss flowing from this inefficiency can be of the same order of magnitude as the deadweight loss flowing from the supracompetitive pricing that resulted from the antitrust injury itself.

7.3. PUBLIC ENFORCEMENT

7.3.1. Fines and Leniency Programs

While private enforcement has been predominately a US-centric exercise, public enforcement of antitrust has been a growth industry worldwide. Along with more

aggressive enforcement activities by a variety of enforcement authorities has come the opportunity for settlements that reflect a combination of fines and injunctive remedies. Settlements of cartel cases have been particularly important in the United States and in Europe. In this section, I briefly summarize the development of the system in the United States (the European Union has a system that is largely but not entirely similar). Following this, I briefly review some relevant empirical evidence in both Europe and the United States.

In 1993 the United States updated and modified its Corporate Leniency Program as a means of strengthening public enforcement of cartels. Since that time these programs have grown internationally with over 50 countries having introduced such programs.[13] Initially the program provided immunity from federal prosecution for the first company that came forward and fully cooperated with the government's investigation. The company then faced single rather than treble damages in private litigation. By almost any account the program has been highly successful. Relatively few federal investigations result in trials on the merits; most are settled with the payment of corporate fines. (As explained previously, there is substantial follow-on litigation, and many of these cases are settled.)

The first large cartel fines were assessed in the lysine and citric acid cases, with Archer Daniels Midland paying a $100 million fine. This was followed by fines of $110 million by UCAR International and by SGL in the graphic electrodes conspiracy in 1998 and 1999, respectively. The fines continued to grow over time. With respect to the conspirators in the worldwide vitamins conspiracy, F. Hoffman–La Roche Ltd paid $500 million and BASF AG paid $225 million. More recent large fines were levied with respect to air cargo ($1.6 billion in total), liquid crystal display ($860 million), and dynamic access memory ($730 million). The European Union's leniency program has also been highly effective in inducing cooperation and in the imposition of substantial fines. As an example, the European Commission imposed fines on four car glass manufacturers that totaled more than 1.3 billion euros.

Why do those cartel members not receiving leniency choose to settle cases rather than fully contest the decisions of the enforcement authorities? In the United States, plea bargaining is a standard means of disposing of cases involving both corporate and individual liability. In Europe, the process is somewhat different. Wils (2008) offers an insightful discussion with respect to the European Union's leniency program. In general, Wils points out that the benefits of settlement include faster resolution, less adverse publicity, less burdensome remedies, and/or a narrower finding of infringement. In 2008 the Commission regulations were modified to allow settlements to incorporate (in some cases) a narrower than initial characterization of the cartel "infringement" and a 10 percent reduction in the fine.

Wils argues that the faster resolution of cases is likely to increase the deterrence value of the enforcement. Moreover, the cost savings that flow from settlements allows the enforcement agency to pursue a larger number of cases, which also increases deterrence. In some instances faster resolution and lower cases will create a sufficient incentive for violators to settle cartel enforcement cases. However, in other cases additional benefits

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[13] The descriptive materials concerning the US program are described in detail in Hammond (2010). For a broad empirical overview, see Wood (2010); see also Spagnolo (2008).

are likely to be required—the previously mentioned reductions in penalties being the primary device that is utilized.

It seems likely that the loss of 10 percent of revenues will be outweighed by the benefits that flow from increased deterrence. However, I am unaware of any empirical post-settlement studies that provide direct evidence on this point. A complete study would require an evaluation of the selection of cases that do settle. Such a study would need to evaluate the incentives of both parties to resolve a case. To illustrate, it is possible, as Wils points out, for the competition authority to settle a relatively weak case and to fully litigate a strong case, whereas the incentives of the cartel members might be the opposite. The settlement resolution will depend on the specifics of the settlement process, any information asymmetries, and differences in the risks and rewards faced by each of the parties to the settlement negotiation.[14]

One paper that does offer some valuable insights into the settlement process under the European Union regulations is Ascione and Motta (2008). The authors offer an analysis of the optimal fine reduction for settling parties by examining the fine reductions awarded for all the European competition law infringements occurred between 1970 and 2007. In the view of the authors, a company that decides to settle likely loses the possibility of appealing to the Court of First Instance. The reason is that when deciding to enter in a settlement the Commission will compare the fine it receives if it settles with the fine it would expect to receive if it pursues an appeal through the courts. If the latter exceeds the former, the undertaking decides not to settle. The authors' empirical analysis shows that the expected fine reduction of a firm that appeals to the European Community Courts is about 26 percent. This is substantially higher than the 10 percent fine reduction established by the Commission. The authors suggest as a consequence that the 10 percent fine will not create a sufficient incentive to settle, that the settlement participation rate will be low, and that the impact of the settlement inducements on the length of cartels' prosecution will be small.

A byproduct of the increasing globalization of antitrust enforcement has been the increased interaction among the enforcement authorities. This is to be expected in part because the reach of authorities such as the Department of Justice and the European Commission extends to foreign firms and individuals whose anticompetitive actions harm domestic competition and consumers. Moreover, the United States and the EU (among other agencies) have found it advantageous to provide assistance to the newer antitrust authorities and in some cases to enter into agreements to jointly engage in anti-cartel enforcement activities.

With respect to the extraterritorial reach of the authorities, questions have been raised as to the motivations of the US and EU enforcement agencies. To be specific, EU

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[14] De Azevedo and Furquim (2010) offer an interesting study of settlements in Brazil. First, they suggest that settlements can both increase the likelihood of detection and save litigation costs. Second, they point out that inducements towards settlements have been limited in use because they are effectively designed for the defendants that are likely guilty in any case. Nonetheless, the authors suggest that the settlement policy in Brazil has not had an adverse effect on leniency agreements, while reducing litigation costs and granting a final resolution in a number of cases. For a review of EU decisions, see Carree, Gunster, and Schinkel (2010).

settlements with major US companies such as Microsoft, IBM, and Intel have raised questions as to whether the European Commission might be acting in support of domestic industries. A recent study of enforcement actions by the European Union and the United States between 1994 and 2009 by Cremieux and Snyder (2010) provides an answer. The authors find little support for the protectionist interest theory. While their results are somewhat mixed, they do find evidence that US antitrust authorities have imposed disproportionately larger fines on EU firms than on US firms.

7.3.2. Settlements and Consent Decrees

Settlements of cases brought by governmental entities have a different character than settlements in private cases. For one thing, in civil cases almost always remedies are injunctive, some of which are structural in nature and others of which are behavioral. For another thing, government entities face real resource constraints that require strategic choices; settling one case can free up resources that will enable the prosecution of other cases. Furthermore, governmental actors may have different goals than their private counterparts, in terms of the creation of appropriate long-run deterrence incentives and/or the achievement of shorter-run political objectives. Settlements in governmental cases also create different incentives for defendants who are concerned about the public impact of continuing litigation and the incentives that settlement will have on future private litigation. In this subsection, I delve briefly into some of these issues.

From the defendant's perspective settling a case may limit the flow of adverse public information. Further, settling may avoid the use of facts and legal conclusions in follow-up litigation. To illustrate, findings relating to market definition and market power in government litigation can be used offensively in treble damages actions as collateral estoppel in private cases. From the government's perspective, settlements not only save on litigation costs, when resolved through a formal consent decree, settlements can have significant precedential value.

Under the US Tunney Act, settlements that take the form of consent decrees must be approved by the courts as being fair, reasonable, and adequate. Along with a public Competitive Impact Statement, the consent decree will include a clear statement of the antitrust concerns that are being remedied. This serves a valuable deterrence goal, while also allowing the government to claim success in its investigative and enforcement process. To illustrate this latter point, when the Antitrust Division of the Department of Justice reports on its civil enforcement merger activities, it typically emphasizes the number of enforcement actions, announcing not only those cases that were tried successfully or unsuccessfully, but also the number of mergers that were abandoned or settled through consent decrees.[15]

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[15] For a broad discussion of the political economy of antitrust, see Ghosal and Stennek (2007).

7.4. CONCLUDING REMARKS

Settlements have played an important role in the resolution of private antitrust litigation for decades. Moreover, a variety of changes in the rules of civil procedure as well as the common law of antitrust have affected the incentives of parties to settle rather than to proceed to trial. What has been of more recent interest has been the expansive growth of public enforcement in many countries outside the United States. Along with that growth has come aggressive public enforcement coupled with leniency programs that encourage settlement.

The next decade of enforcement should prove to be an exciting one not only from a policy perspective, but also from the point of view of empirical scholars of antitrust who are looking for a new set of "natural experiments" that will help us to understand the complexities of antitrust settlement bargaining.

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