ISSN 1045-6333

HARVARD

JOHN M. OLIN CENTER FOR LAW, ECONOMICS, AND BUSINESS

SUITS WITH NEGATIVE EXPECTED VALUE

Lucian Arye Bebchuk

Discussion Paper No. 226
12/1997

As published in
3 *The New Palgrave Dictionary of Economics and the Law* 551-554 (1998)

Harvard Law School
Cambridge, MA 02138

The Center for Law, Economics, and Business is supported by a grant from the John M. Olin Foundation.

SUITS WITH NEGATIVE EXPECTED VALUE

Lucian Arye Bebchuk*

Abstract

This essay focuses on negative-expected-value suits (NEV suits) -- suits in which the plaintiff would obtain a negative expected return from pursuing the suit all the way to judgment. The essay surveys the existing theories as to why, and when, plaintiffs with NEV suits can extract a positive settlement amount.

Keywords: Litigation, settlement, frivolous suits, negative expected value suits.
JEL Classification: K19, K41

*William J. Friedman and Alicia Townsend Friedman Professor of Law, Economics, and Finance, Harvard Law School. I wish to thank the John M. Olin Center for Law, Economics, and Business at Harvard Law School and the National
Science Foundation for their financial support.

This essay discusses the existing theories as to why (and when) plaintiffs with negative-expected-value suits can extract a positive settlement amount from the defendant.

DEFINITION OF NEV SUITS. A negative-expected-value (NEV) suit is one in which the plaintiff would obtain a negative expected return from pursuing the suit all the way to judgment -- that is, one in which the plaintiff's expected total litigation costs would exceed the expected judgment. Thus, denoting by C_p and C_d the total litigation costs of the plaintiff and the defendant respectively and by W the expected judgment, a suit is an NEV suit if

$C_p > W$.

It should be emphasized that an NEV suit need not be a frivolous suit -- that is, a suit in which the plaintiff is unlikely to win. A meritorious suit -- one in which the likelihood of a plaintiff victory is quite high -- might be NEV if the litigation costs involved are sufficiently large relative to the amount at stake.

THE PUZZLE OF NEV SUITS. It is generally believed that cases with NEV suits are abundant, and that plaintiffs with NEV suits are frequently able to extract a positive amount from the defendant to settle the case. But why would a rational defendant agree to pay any settlement amount to a plaintiff with an NEV suit? This is the question that the literature has sought to answer.

The early literature on litigation has largely abstracted from the question of NEV suits (see Gould (1973), Landes (1971), and Posner (1973)). And the first papers on litigation decisions under asymmetric information (see, Bebchuk (1984) and P'ng (1983)) have explicitly limited their analysis to cases in which the plaintiff's suit is known to be a PEV one. But work done since the mid-80's has put forward a number of explanations for the potential success of plaintiffs with NEV suits to extract a settlement.

To describe the range of explanations that have been put forward, let me start by stating a set of assumptions under which a plaintiff with an NEV suit will never be able to extract a

settlement offer: (1) there is no asymmetry of information between the parties; (2) the plaintiff's litigation costs are not divisible; (3) the defendant does not have to incur some upfront costs before the plaintiff incurs any costs; (4) the plaintiff does not employ some special contractual arrangements with the plaintiff's lawyer; (5) the plaintiff does not have a reputation that enables it to bind itself to going to trial if the defendant refuses to settle; and (6) the expected value of the judgment is expected to remain below total litigation costs throughout the litigation. As I discuss below, relaxing any one of the above six assumptions introduces a factor that can sometimes enable a plaintiff with an NEV suit to extract a settlement.

ASYMMETRIC INFORMATION. Since the early 80's much of the literature on litigation has focussed on the consequences of asymmetric information, using a model of litigation decisions under asymmetric information put forward in Bebchuk (84). And it turns out that the presence of an informational asymmetry is also relevant to NEV suits. Bebchuk (88) extended the model of litigation decisions under asymmetric information of Bebchuk (84) to NEV suits and demonstrated that the presence of an informational asymmetry can explain the success of some NEV suits. The asymmetric information explanation was also subsequently examined by Katz (90).

To see the role that asymmetric information can play in this context, consider the situation of a defendant who does not know whether the expected value to the plaintiff from going to trial is positive or negative. This uncertainty might result from private information that the plaintiff has either about C_p or about W. In this case, in deciding whether to make a positive settlement offer to the plaintiff, the defendant will consider two possibilities. On the one hand, the plaintiff might have an NEV suit, in which case offering to settle would be wasteful since the plaintiff would not go to trial anyway. On the other hand, the plaintiff might have a PEV suit, in which case making a settlement offer would possibly prevent litigation and produce a beneficial settlement. Balancing these two considerations, the defendant might elect to make a settlement offer, which the plaintiff will of course take if the plaintiff's suit is in fact an NEV suit.

It is possible to derive the conditions under which a plaintiff with an NEV suit can extract a settlement offer due to the presence of informational asymmetry (see Bebchuk (88, pp. 445-6). For example, the greater the defendant's expected litigation costs and the greater the probability attached by the defendant to the suit being an NEV suit, the more likely the possibility that the defendant will make a settlement offer.

DIVISIBILITY OF LITIGATION COSTS. Turning to other explanations, we shall from now on assume that there is no informational asymmetry between the parties. Bebchuk (1996, 1997) has shown that the divisibility of the litigation process can provide a plaintiff with a credible threat, and enable it to extract a settlement, even if the plaintiff is known by the defendant to have an NEV suit. What underlies the considered explanation is the recognition that litigation costs are generally not incurred all at once in a lump-sum fashion -- but rather are spread over a period of time, with bargaining possibly taking place on numerous occasions throughout this period. This divisibility turns out to play an important strategic role.

To see the strategic implications of divisibility, consider a case in which W is 100 and C_p and C_d are both 120. Initially, suppose that there is only one litigation stage in which all of the parties' litigation costs must be incurred in a lump-sum, indivisible fashion. In this case, in the negotiations preceding this indivisible stage, the plaintiff will not have a credible threat; for, if the defendant refuses to settle, the plaintiff can be expected to drop its case. Anticipating this, the defendant will refuse to settle for any positive amount.

Suppose, however, that the litigation costs in the case under consideration are expected be incurred in two equal-cost stages and that the parties can engage in settlement negotiations not only before the first stage but also between the two stages. Analyzing this case by backward induction, let us start by considering the bargaining round between the two stages. Assuming that the parties reach this round, the plaintiff will have a credible threat to proceed to judgment. At this stage, the cost of the first stage of litigation is already sunk, and going all the way to judgment would provide an expected judgment of 100 and involve an additional cost of only 60.

Thus, if the parties somehow reach the bargaining round between the two stages, the plaintiff will have a credible threat and will be able to extract a settlement. With an expected judgment of 100, and each party facing an additional cost of 60, the parties can be expected to settle at some point in the range between 40 and 160, with the location of the point depending on the parties' relative bargaining power.

Now suppose that the plaintiff can be expected, should the parties reach the bargaining round between the two litigation stages, to obtain a settlement amount that exceeds 60. And let us proceed in the process of backward induction one stage back in time. In the bargaining round before the first stage, it is now the case that the plaintiff will have a credible threat to proceed through the first litigation stage. For proceeding through the first stage will cost the plaintiff 60 but can be expected to provide the plaintiff with a settlement amount exceeding 60. And the presence of this credible threat to proceed will enable the plaintiff to extract a settlement offer in the bargaining round preceding the first stage of litigation.

The above example shows that a two-stage division can provide an NEV plaintiff with a credible threat. And a division into more than two stages can further expand the set of situations in which the plaintiff has a credible threat. To see this, suppose that C_p and C_d are 120 each as before but that W is only 50. In this case, with a division of the litigation process into two equal-cost stages, the plaintiff will not have a credible threat and will fail to obtain a positive settlement amount. In contrast, with a division into three equal-cost stages, and assuming that the parties have equal bargaining power (or at least that the bargaining power is not too skewed in favor of the defendant), the plaintiff will have a credible threat and succeed in extracting a positive settlement amount. Indeed, Bebchuk (1997) provides a proof that a finer division of the litigation process might sometimes improve -- and can never worsen -- the strategic position of the plaintiff and its ability to extract a settlement.

While divisibility can expand the set of circumstances in which an NEV plaintiff can obtain a settlement, divisibility cannot always provide and NEV plaintiff with a credible threat.

There are cases of NEV suits in which, no matter how finely the litigation process is divided, the plaintiff will not have a credible threat. An analysis of the factors that determine when divisibility can and cannot provide a credible threat can be found in Bebchuk (1996) and, more fully, in Bebchuk (1997).

UPFRONT COSTS BY THE DEFENDANT. Another explanation for the success of NEV plaintiffs, which was put forward by Rosenberg and Shavell (1985), can apply even if the plaintiff's litigation costs are not at all divisible. Rosenberg and Shavell focused on those situations in which, after the plaintiff files a suit at no or little cost, the defendant must incur some significant costs of responding (because failure to respond would lead to default or summary judgment against the defendant) before the plaintiff has to incur any costs. Because only the defendant must incur costs during the initial stage of litigation (the first stage is a "cost-free" stage for the plaintiff), the plaintiff can credibly threaten to proceed through the first stage and thus impose the upfront costs on the defendant. In this situation, even if the defendant knows that the plaintiff will drop the case once the defendant responds and incurs its upfront costs, the defendant will be willing to pay a settlement (which might be up to the costs of responding) to avoid incurring these upfront costs.

Bebchuk (1996) generalizes the Rosenberg-Shavell point by combining cost-free stages with divisibility of the litigation process. Suppose that the plaintiff is expected to have a cost-free stage at some point during the litigation process. Then, it can be shown that, if the defendant's cumulative expenses up to the cost-free stage are expected to be sufficiently large compared with the plaintiff's cumulative expenses up to that stage, the plaintiff will have a credible threat to begin with and will be able to extract a settlement.

CONTINGENT FEES AND RETAINER ARRANGEMENTS. Thus far, we have abstracted from the nature of the contract between the plaintiff and the plaintiff's lawyer. But, as Bebchuk and Guzman (1997) point out, the plaintiff might be able to create a credible threat to

go to trial by using a contingency fee or retainer arrangement.

To see how lawyer-client arrangements might affect the plaintiff's credibility, consider a case in which W is 100. Suppose that the litigation costs to the plaintiff consist only of attorney fees, and let us further suppose that, if the plaintiff were to pay its lawyer on an hourly fee basis, C_p would be 125 -- made of 20 for hours spent on the preparatory stage before settlement negotiations take place and 105 for hours spent on the trial that would take place in the event of no settlement. Under an hourly fee arrangement, the plaintiff's suit is of course an NEV one.

Now consider what would happen if the plaintiff were to hire its lawyer on a contingency fee with the lawyer promised 20% of the plaintiff's recovery (whether in settlement or in judgment). In this case, when the parties reach the stage of settlement negotiations, the plaintiff will have a credible threat to go to trial if the defendant refuses to settle for at least 100. Thus, with such a contingency fee arrangement, the parties can be expected to settle after the initial preparatory stage for an amount of 100 or more. It remains to consider why the lawyer would agree to such a contingency fee arrangement. But if the parties can indeed be expected to settle for at least 100 after the initial stage of preparations, being promised 20% of the expected settlement would be sufficient to compensate the lawyer for the actual work that the lawyer would be expected to do during the preparatory stage.

REPEAT PLAYING AND REPUTATION. Thus far the analysis has focused on one-shot litigation. But if any one of the parties is a repeat player, this party might develop a reputation which might enable it to bind itself to take a different course of action than the one that it would be expected to take in the case of one-shot litigation.

To begin, even if none of the factors that have been thus far considered is present, a plaintiff with an NEV suit might nonetheless succeed in extracting a settlement if the plaintiff is a repeat player with reputation of going to trial if a settlement is refused in cases of this sort; for this reputation would provide the plaintiff with a credible threat to go to trial, and the credibility of this threat might induce the defendant to settle (see Farmer and Pecorino (1996)). Conversely,

even if some of the factors discussed above are present to an extent that would enable an NEV plaintiff to extract a settlement offer in a one-shot litigation, the plaintiff might not succeed in extracting an offer if the defendant is a repeat player with reputation of not settling cases of this sort (see Miceli (1993)).

NEW INFORMATION AT INTERMEDIATE POINTS. During the litigation process, the parties might get some additional information which might lead them to revise their estimate of the expected value of the judgment. Thus far, I have assumed that the parties' estimate of the expected value of the judgment is expected to remain below total litigation costs throughout the litigation. Under this assumption, getting a settlement is the only way in which the plaintiff might end up with a positive return from the litigation. And the discussion thus far has focussed on whether the plaintiff can succeed in extracting such a settlement.

Cornell (1990) and Landes (1993) extend the analysis to cases in which the plaintiff might get favorable information at some intermediate point which may turn the plaintiff's suit to a positive-expected-value suit. In such a case, even if the likelihood of settlement were zero, it might still be in the plaintiff's interest to proceed up to the intermediate point and then go on if the information received is favorable (and drop the case otherwise). And the anticipation that it is in the plaintiff's interest to proceed at least to that intermediate point will strengthen the plaintiff's position in prior negotiations and might enable the plaintiff to extract a settlement offer.

NORMATIVE IMPLICATIONS. In closing, I wish to highlight the fact that the literature that this essay surveys has largely focused on positive analysis -- on understanding the conditions under which NEV suits will be brought and succeed. The conclusion that the literature has reached -- that NEV plaintiffs can in many cases succeed in extracting a settlement -- suggests that the threat of using legal sanctions can provide plaintiffs with recovery in a larger set of circumstances than had been recognized by the preceding literature. This feature of the legal system might sometimes have beneficial consequences and sometimes undesirable ones.

With respect to NEV suits that are meritorious (and are NEV simply because the required litigation costs would be large relative to the amount at stake), a NEV plaintiff's ability to extract a settlement offer might well be beneficial. In contrast, with respect to NEV suits that are frivolous, a NEV plaintiff's ability to extract a settlement offer might well have undesirable consequences. Now that we have obtained some substantial understanding concerning when NEV suits can succeed, the challenge for future work in this area is to design rules and policies that would produce as close a correlation as possible between the success and merits of NEV suits.

BIBLIOGRAPHY

Bebchuk, L.A. 1984. Litigation and settlement under imperfect information. *Rand Journal of Economics* 15, 404-415.

Bebchuk, L.A. 1988. Suing solely to extract a settlement offer. *Journal of Legal Studies* 17, 437-449.

Bebchuk, L.A. 1996. A new theory concerning the credibility and success of threats to sue. *Journal of Legal Studies* 25, 1-25.

Bebchuk, L.A. 1997. On divisibility and credibility: the effects of the distribuiton of litigation costs over time on the credibility of threats to sue. Working paper, Harvard Law School, Cambridge, MA.

Bebchuk, L.A. and Guzman, A. 1997. The effect of contingency fees and retainers on the credibility of threats to sue and defend. Working paper, Harvard Law School, Cambridge, MA.

Cornell, B. 1990. The incentive to sue: an option pricing approach. *Journal of Legal Studies* 19, 173-187.

Farmer, A. and Pecorino, P. 1996. A reputation for being a nuisance: frivolous lawsuits and fee shifting in a repeated play game. Working Paper, University of Tennesee.

Gould, J.P 1973. The economics of legal conflicts. *Journal of Legal Studies* 2, 279-300.

Katz, A. 1990. The effect of frivolous lawsuits on the setttlement of litigation. *International Review of Law and Economics* 10, 3-27.

Landes, W.M. 1971. An economic analysis of the courts. *Journal of Law and Economics* 14, 61-107.

Landes, W.M. 1993. Sequential versus unitary trials: an economic analysis. *Journal of Legal Studies* 22, 99-134.

Miceli, T.J. 1993. Optimal deterrence of nuisance suits by repeat defendants. *International Review of Law and Economics* 13, 135-144.

P'ng, I. 1983. Strategic behavior in suit, settlement, and trial. *Bell Journal of Economics* 14, 539-550.

Posner, R.A. 1973. An economic approach to legal procedure and judicial administration. *Journal of Legal Studies* 2, 399-458.

Rosenberg, D. and Shavell, S. 1985. A model in which suits are brought for their nuisance value. *International Review of Law and Economics* 5, 3-13.