# Managing Litigation Cost: How To Trade Off Litigation Risk $\mathcal{E}$ Litigation Cost Using Litigation Risk Management 

BY BRUCE L. BERON

How do you manage litigation costs? Budgeting? Reviewing bills? Do you really think that you are addressing, directly and effectively, the issues of litigation bang for the buck? Which dollars are most effective? Are you consciously aware how much extra risk you are incurring when you limit costs/attorney hours? Outside counsel can't help you in this task in an unbiased way.

You can't properly manage litigation costs unless you understand what risk is, how to quantify it, and how it changes when you spend more or less money on the case.

This is not a high precision exercise, but an explicit way of quantifying gut-feelings and discovering that you are making the right decisions so that you can explain these decisions to others. Before you can address these issues, you need to understand some simple concepts.

## Terms and Basic Principles

The cornerstone of this approach is the concept of expected value. The expected value of a case is the value you would get if you could try the case a few hundred times and then take the average of all of those outcomes. Think of it as a probability weighted average value. As a simple example, think of calling a coin toss to win $\$ 100$. If you call the toss correctly, you win $\$ 100$; if you call it incorrectly, you get nothing. Obviously there is a fifty-fifty chance of winning, and the expected value is $\$ 50$, $50 \%$ of $\$ 100$ plus $50 \%$ of $\$ 0$ (See Figure 1 on page 7 ).

## Expected Value calculation

The expected value represents an average, but, in this case you will only play once. Even though you will get either $\$ 100$ or nothing, the expected value is a good measure to start with in valuing the venture for decision-making purposes. Although it may not accurately represent what you will get from this one venture, if you have many ventures, and do a good job of establishing proba-
bilities, and then add up the expected values of all your ventures, that number has meaning. It should be a good estimate of what all your ventures are worth. For example, if you owned 100 tickets for coin tosses, it would be safe to say that the set is worth $100 \times \$ 50=\$ 5,000$. (In fact, there is a $95 \%$ chance that you will realize between $\$ 4,000$ and $\$ 6,000$ ). Therefore, the expected value is a good measure of the value of a venture. In certain unusual circumstances where the outcomes are significant compared to the net worth of the company, the expected value should be adjusted by calculating a Risk Premium, in effect, an insurance payment to avoid the consequences of a really bad outcome.

Note that the expected value has nothing to do with what you might get in the marketplace or as a value for which you could settle. For example, you may not be able to find anyone who is willing to pay the expected value and thus you will prefer to take your chances with the venture.

For the purposes of this article, risk is defined as the expected loss of a trial, the product of the probability of losing the case and the amount of damages awarded.

## The Added Bonus of Settlement

## Negotiations Assistance

The expected value/loss is also the "reservation price" for settling the litigation. Clearly if you can get out of the case (on the defense) for less than the expected loss plus the cost of litigation, you are, on average, ahead of the game. Litigation Risk Management Analysis will give you and your client the reservation price for the case in a way that can be clearly explained and defended. This reservation price is a necessary prerequisite to good negotiating and allows the negotiation to become the means to an end instead of an end in itself.

## Basic Principles — Probabilities

Before you move on to the question of Risk/Cost trade-offs, you should understand more about probability. It quantifies your state of knowledge and judgment. It is per-
fectly reasonable for different people to have different opinions and therefore different probabilities for the same event.

Unlike a coin, for which there is an observable frequency that you could measure by tossing it many times and counting the number of heads and tails (and get a "correct" answer for the probability), each litigation case happens only once. The probabilities represent the best judgment, knowledge, and experience that you can bring to bear on the particular uncertain outcome. There is no correct probability. If you asked someone who could forecast the outcome of the trial or of any single issue, "Will we win?", the correct answer would be a "yes" or "no," not a probability.

## The Key to Controlling Cost in Litigation - Trading Off Expected Value (Risk) and Cost

The basis of this approach can be demonstrated in the Risk/Cost Trade-Off Chart (see Chart 1 on page 7). Assume you have been sued for $\$ 50 \mathrm{M}$. If you put no work into your defense and walked into the courtroom and said "Your honor, we didn't do it!" and sat down, you would very likely lose the case for $\$ 50 \mathrm{M}$. That point is shown on the chart in the upper left hand corner - No Cost. As you spend more time and effort preparing your defense, your costs rise linearly, shown in the chart on the Costs line. Your expected losses will, of course, get smaller as you put in more and more effort on the case. However, at some point, there will be no further practical reduction in the expected loss. This curve is shown as the Expected Losses - Risk line in the chart. If you add the two lines, Cost and Expected Losses you get your Total Cost. There is an optimal point at which one should litigate, and that point is the lowest Total Cost, shown by the arrow in the chart to the Optimal Cost Expenditure Point. Most companies and firms litigate a case so far off the scale to the right that they can not even see the chart. Why? Because no one is rewarded for trying cases optimally. They are rewarded for winning a case, and winning usually means not losing out-
right, which means that you will go to great lengths to reduce the probability of losing the case, as costly as that may be.

To determine the optimal cost of defense, you should learn a technique called the Value of Control.

## Value of Control

Consider a tree describing a very simple case (see Figure 2). You have a $50 \%$ chance of losing the case and if you lose, you will have to pay $\$ 100,000$ in damages. The expected value/loss is $-\$ 50,000$.

What would the case cost if you were certain to win? Clearly, $\$ 0$ (ignoring litigation costs). What was the value without any control? - $\$ 50,000$. Therefore, the value added by the perfect control (perfect because you are $100 \%$ sure of winning) is \$50,000 (see Figure 3).

Perfect control is impossible, so you have to settle for imperfect control. Suppose that by running some laboratory tests and bringing in another technical expert to testify in the trial, you could lower the probability of losing from 0.5 to 0.4 . Would it be worth spending an extra $\$ 3,000$ (this is a very reasonably priced expert)?

The value of the case is - $\$ 40,000$ if the probability of losing is 0.4 versus a value of $-\$ 50,000$ if the probability is 0.5 (see Figure 4). Therefore, Imperfect Control adds $\$ 10,000$ to the value of the case and it would certainly be worth spending the extra $\$ 3,000$.

While this is a simple example, real decisions in actual cases can and have been made using these tools. Imperfect control is an important concept in determining pretrial and trial strategy, for it allows you to choose the best strategy, to refine it, to understand the basis for your decisions, and to explain them, clearly and rigorously, to your clients and colleagues. It is just one tool available in Litigation Risk Management Analysis.

## BRUCE L. BERON, PH.D.

is President of Litigation Risk Management Institute in Palo Alto, California. He can be reached at 650.327.3372 or BruceBeron@lrmi.com. The Litigation Risk Management Institute web site is www.lrmi.com.

Chart 1
RISK/COST TRADE-OFF


Figure 1


Figure 2


Figure 3


Figure 4
The Value of the case
Trial Outcome
WITH IMPERFECT CONTROL
\$40,000
Value of imperfect control \$10,000

```
Value with imperfect control \((\$ 40,000)\)
Value with imperfect control \((\$ 40,000)\)
Minus the Value without control - \(\underline{(\$ 50,000)}\)
Minus the Value without control - \(\underline{(\$ 50,000)}\)```

