

# A Summary Description of the ICBM and Use of the ICBM SPREADSHEET

It is virtually impossible to construct a decision tree that depicts all the events and outcomes that can occur in civil litigation, especially at the outset of the case. Too many unanticipated events can happen in litigation. Even events that are likely to occur and can be reasonably anticipated can have unpredictable outcomes. As a result, if decision trees are used at all to evaluate a settlement offer they are typically grossly over simplified, ignoring most of the events that can occur and impact the outcome in civil litigation. For example, pretrial events like a summary judgment motion that could result in a full dismissal of the case might not be included. Unanticipated events during the trial that could affect the outcome would necessarily be omitted. Early on in a case, even an appeal would not be included in a meaningful way because it is impossible to determine the likelihood of an appeal and all its possible outcomes (e.g. affirmation, reversal, and all varieties of remands that might occur) before any issue that would be the basis for an appeal has materialized. As a result, a decision tree might include just two events, winning the case and losing the case, perhaps at most showing the possibility of a few different judgments and their probability of occurrence.

These overly simplified decision trees can frequently lead to incorrect

(and very costly) settlement decisions for two reasons. First, they produce very imprecise expected values of litigating and the extent of the imprecision is very difficult to gauge. Thus, the expected values are not reliable benchmarks against which to compare a settlement offer, especially when the decision to accept the settlement offer or to litigate the case is even somewhat close. Second, these decision trees greatly understate the risk in litigating because they do not show all the possible outcomes of litigating, particularly the adverse ones, that can occur. As a result, they can lure a litigant into rejecting the settlement offer and litigating the case by making the litigation alternative look better than it really is.

The ICBM (Iterative Convergent Bounding Method) addresses these problems by using a sequence of contrived best and worst case scenarios of litigating a case to a final judgment. There are five iterations in the ICBM sequence, each with a best and worst case litigation scenario which almost certainly bracket the favorability of the actual litigation scenario that will eventually unfold if the case does not settle. The first iteration is the most optimistic best case litigation scenario and the most pessimistic worst case litigation scenario in the sequence. With each subsequent iteration, the best and worst case scenarios become incrementally less optimistic and pessimistic, respectively. But even in the last iteration, the best case is still very optimistic and the worst case still very pessimistic. Thus, the corresponding best and worst case expected values of litigating in each iteration become tighter bounds on the most likely financial outcome of litigating the case to a final judgment as they converge with each subsequent iteration.

These litigation scenarios, because of their contrived best and worst case design, are relatively simple but internally exhaustive, including all the possible events and outcomes (including summary judgment motions, if one or more is a possibility, the trial, and an appeal scenario which in some cases requires subsequent action by the trial court) in their respective scenarios. As a result, because no events and outcomes have been eliminated in each scenario, for a given set of numerical estimates the decision trees for each scenario produce very precise expected values of litigating. Moreover, because of the best and worst case construction,

very few estimates have to be made and they are for specific events, not gross overall estimates for litigating the case, further enhancing the accuracy of the ICBM expected values. By taking the event uncertainty out of the numerical estimates, the ICBM replaces a very imprecise single expected value of litigating that an overly simplified decision tree provides with a precise range of expected values for litigating a case to a final judgment.

The ICBM is used as follows. If a settlement offer is better than a best case expected value of litigating, it should be accepted. If it is worse than a worst case expected value of litigating, it should be rejected. The earlier the iteration that provides an answer (where the settlement offer does not lie between the best and worst case expected values), the more confident the litigant can be with the decision. But the litigant can be confident with the decision even if it is the last iteration that provides the answer because the best and worst case expected values in the last iteration are still very optimistic and pessimistic respectively. Even if the settlement offer lies between the best and worst case expected values in the last iteration, a decision can usually be reached by assessing the proximity of the settlement offer to the best or worst case expected value. Sensitivity analysis with the numerical estimates can also help with the decision.

The ICBM SPREADSHEET makes the process effortless. A user need only enter the few numerical estimates required. The spreadsheet then calculates the best and worst case expected values for each iteration automatically. Sensitivity analysis can therefore be done in a few key strokes. This feature makes a quantitative assessment of the risk involved in litigating the case practicable. The range of expected values for the set of most likely numerical estimates reflects the litigating risk associated with the uncertainty in all the possible events that could occur and impact the outcome if the case is litigated. In most cases, the last iteration captures most of this event risk. As a more pessimistic value of a numerical estimate is entered, the increase in the range of expected values caused by the worsening of the expected values, shows the incremental risk associated with that estimate. Usually the increase in the range of expected values in the last iteration reflects most of the estimate risk associated with that

estimate. The user can then assess his or her tolerance for the resulting range of expected values (particularly the worst case expected values) and incorporate that risk assessment into their decision. Below is a sample ICBM SPREADSHEET.

# ICBM SPREADSHEET

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STEP 1:	Enter the probability of winning the trial in M4:	67%
STEP 2:	Enter the probability of winning a summary judgment motion (or the equivalent) and its appeal in M6:	50%
STEP 3:	Enter the cost to litigate through the trial (not including the cost of a summary judgement motion) in M8:	\$200,000
STEP 4:	Enter the additional cost to litigate an appeal of the outcome at trial in M10:	\$75,000
STEP 5:	Enter the additional cost to litigate a retrial in M12:	\$100,000
STEP 6:	Enter the additional cost of a summary judgment motion (or the equivalent) including its appeal in M14:	\$80,000
STEP 7:	Enter the most likely or expected value of the judgment if the plaintiff prevails in M16:	\$2,420,000

*NOTE: Cost estimates should not include what has already been spent.*

## EXPECTED VALUE OF LITIGATING (\$)

### FOR A PLAINTIFF

ITERATION	1	2	3	4	5
BEST CASE	2,240,000	2,202,500	2,093,056	2,068,056	1,967,315
WORST CASE	(355,000)	(280,000)	1,530,278	1,542,778	1,698,426

## EXPECTED VALUE OF LITIGATING (\$)

### FOR A DEFENDANT

ITERATION	1	2	3	4	5
BEST CASE	(180,000)	(217,500)	(326,944)	(351,944)	(452,685)
WORST CASE	(2,775,000)	(2,700,000)	(889,722)	(877,222)	(721,574)

The best and worst case construction of the ICBM also lends itself to an assessment of the opportunity and indirect costs of litigating along with the risk of litigating when making a decision. For example, a litigant would have to be facing high opportunity/indirect costs of litigating and

be very risk averse to accept a settlement offer that was close to a worst case expected value of litigating, especially an early iteration worst case. Alternatively, if the decision is a close one before a consideration of these factors, their consideration might make accepting the settlement offer advisable.

The best and worst case expected values in the ICBM also calibrate the advisability of holding out for a better offer. For example, a litigant would be ill-advised to reject a settlement offer that was better than an early iteration best case expected value of litigating hoping for a better offer down the road.

In any settlement decision, the comparative tax consequences and time value of money of settling or litigating should be also considered. The differential effect of these factors on the parties may be used to facilitate a settlement.

To use the ICBM and the ICBM SPREADSHEET properly, just the few basic rules listed below need to be remembered. Understanding the mathematical rigor that underlies the methodology is unimportant to using the methodology.

1. The expected values in the ICBM and the ICBM SPREADSHEET are for litigating the case to a final judgment without the prospect of settling. These values are then compared to a settlement offer or other non-litigating option.
2. The expected values in the ICBM and ICBM SPREADSHEET are not for the plaintiff and defendant who are opposing each other in the same case. (Both cannot have the same probability of winning at trial.) They are for the party, whether the plaintiff or defendant, for whom the estimates apply.
3. The ICBM assumes the case will be decided at trial on the merits (the facts and the law). If factors other than the merits affect the estimate of winning at trial to the extent they create substantive issues for appeal, the conventional decision tree, showing the appeal as a separate event, should be used.

4. When a summary judgment motion is involved, the expected values in the ICBM SPREADSHEET are for the party filing the motion (the moving party) for whom the estimates apply, not the party opposing the motion (the non-moving party). If the moving party is the defendant, the result of a successful motion is a full dismissal of the case. If the moving party is the plaintiff, the result of a successful motion is a final judgment equal to the entry in STEP 7. (Appendix 2 of the book describes how to use the ICBM SPREADSHEET if you are the non-moving party or a successful motion does not end the case.)
5. The ICBM and ICBM SPREADSHEET are for use in civil litigation in the United States, not for litigation in other countries.

While this Summary Description will be a handy reference when using the ICBM and the ICBM SPREADSHEET, the user is encouraged to read the book in order to have a full understanding of their proper use and the wide range of applications in which they can be used. The book illustrates their use in a number of different cases to evaluate settlement offers and other litigation avoidance measures. It also describes how they can be used to make settlement conferences more productive, how general counsels, insurance companies, and attorneys who work on a contingency fee arrangement can use them to quickly and easily analyze a portfolio of claims and determine each claim's disposition, and how they can be used to formulate litigation strategy and enhance case management.