

## **STRATEGIC ASPECTS OF LITIGATION AND SETTLEMENT**

By F. E. Guerra-Pujol, *University of Central Florida*

### **LEARNING OUTCOMES CHECKLIST**

- A. Understand why going to trial is both risky and costly.
- B. Provide examples of strategic behavior in litigation.
- C. Evaluate the settlement range of a case.
- D. Create a formal model of litigation and settlement.
- E. Explain why settlement negotiations are a form of bargaining.
- F. Model litigation and settlement as a game of chicken.

### **CHAPTER OVERVIEW AND OUTLINE**

A key strategic question in business litigation is the choice between litigation and settlement. In nearly all cases, the outcome of going to trial is uncertain and risky. This inherent uncertainty may be over whether the plaintiff will win (liability) or over how much he will recover if he does win (damages), or both. In addition, litigation is not only risky; it is also costly, since each side is generally responsible for his or her legal costs of going to trial. This chapter explores some strategic dimensions of litigation and settlement, compares settlement to bargaining, and models litigation as a strategic game of chicken.

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## SETTLE OR GO TO TRIAL?

*“You want to [sue] me, roll the dice and take your chances.”<sup>1</sup>*



In the dramatic courtroom thriller “A Few Good Men,” two Marines are charged with killing a fellow soldier, Private William Santiago. An inexperienced U.S. Navy lawyer, Lieutenant Daniel Kaffee (played by Tom Cruise), is assigned their defense. At first, Lt. Kaffee wants to arrange a plea bargain for his clients. He ends up going to trial, though, when he suspects that it was their commanding officer, Colonel Nathan Jessep (played by Jack Nicholson), who authorized the killing of Private Santiago. As he prepares for trial, Lt. Kaffee interviews Col. Jessep and asks him if he ordered a “Code Red” in violation of military rules. Col. Jessep resents this line of questioning and replies: “You want to investigate me, roll the dice and take your chances.”

This exchange between Lt. Kaffee and Col. Jessep illustrates an important aspect of business litigation: going to trial can often be uncertain and risky.

### **Risk and Uncertainty**

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<sup>1</sup> Line spoken by Col. Nathan R. Jessep (played by Jack Nicholson) in the film “A Few Good Men,” Columbia Pictures (1992). You can listen to Jack Nicholson deliver this line here: <http://www.hark.com/clips/wnpvgdwbbq-roll-the-dice-and-take-your-chances>. (Image courtesy of Wikimedia Commons: [https://upload.wikimedia.org/wikipedia/commons/5/55/WLANL - zullie - Vanitas%2C Adriaan Coorte %281%29.jpg](https://upload.wikimedia.org/wikipedia/commons/5/55/WLANL_-_zullie_-_Vanitas%2C_Adriaan_Coorte_%281%29.jpg).)

In ordinary business litigation, one party (the plaintiff) is suing another party (the defendant) and requesting the court to provide some legal remedy.<sup>2</sup> In this chapter, we introduce a key strategic question confronting the parties in business litigation—the choice between **litigation** and **settlement**. In short, when should you *settle*, and when should you *go to trial*?

### Legal Speak

*Litigation and Settlement:* The term *litigation* refers to the process of taking one's case to trial. *Settlement* refers to the process of reaching an agreement to settle one's case out of court.

Many lawsuits often end up settling out of court instead of going to trial because going to trial can be risky. To see why, consider a civil lawsuit from the plaintiff's perspective. If you decide to settle out of court instead of going to trial, you may receive an amount less than what you think your case is worth. If you decide to go to trial, however, you may get nothing at all. In other words, the plaintiff could win it big if he takes his case to trial, but there is a risk of recovering nothing if he goes to trial.

Now, consider the choice between litigation and settlement from the defendant's standpoint. To settle out of court, you may have to pay the plaintiff more than what you think is fair, but if you go to trial, you might get hit with an even larger judgment against you.

Going to trial is not only a risky proposition; it is also a costly one. Under the American rule, each party to a case is responsible for his or her legal costs.

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<sup>2</sup> See Chapter 5.

## Litigation Costs

In addition to the uncertainty of going to trial, there is also a non-trivial cost of going to trial. Under the **American rule**, each party to a case is responsible for his or her legal costs. Thus, going to trial is costly for both parties to a lawsuit, so going to trial is not only uncertain; it is also costly.

### Legal Speak

*American rule:* A rule of civil procedure that provides that each party in a civil action must pay his or her own attorney's fees regardless of whether that party wins or loses the lawsuit.

As such, we can compare the decision of going to trial to the act of placing a bet. In order to place a bet, you will have to risk something. The outcome of the bet may depend on external factors outside of your control or on factors within your control, or both. In short, you may win or lose if you decide to place a bet or take your case to trial. But in order to go to trial in the first place, you will have to incur costly legal fees and other related trial expenses.

Because litigation is risky and costly, you can use this to your advantage in some situations. If you believe, for example, the other side is **risk averse** or unable to incur the costs of further litigation, you can threaten to go to trial no matter what, in order to extract a more favorable settlement offer from the other party.<sup>3</sup>

In sum, because going to trial is both a risky and a costly proposition, the choice between litigation and settlement opens up the possibility of strategic behavior by the parties.

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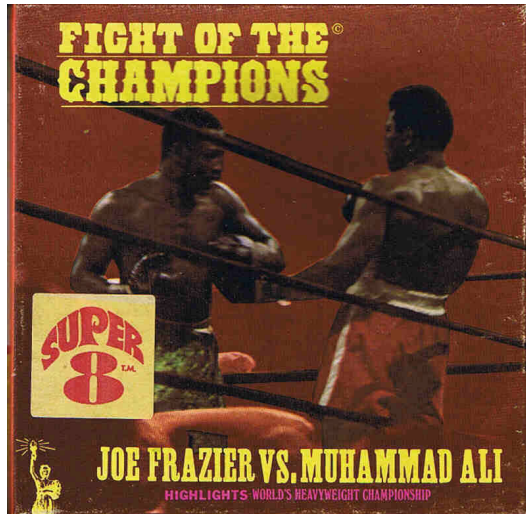
<sup>3</sup> We will explore this possibility later in this chapter.

**KEY POINT**

From the perspective of the parties, going to trial is like placing a bet. Litigation is costly, and the outcome of litigation is often uncertain or risky. There are thus two major advantages of settling out of court: the parties avoid the direct cost of further litigation, and they also avoid the risk and uncertainty of going to trial.

**STRATEGIC BEHAVIOR**

*“Among diverse theories of conflict ... a main dividing line is between those that treat conflict as a pathological state and seek its causes and treatment and those that take conflict for granted and study the behavior associated with it.”<sup>4</sup>*



Litigation, like boxing, is a form of conflict, and litigation, like boxing, involves many elements of **strategy**. Broadly, speaking, the intuition behind the word “strategy” is that individuals and firms decide how to act based on their expectations of how other individuals and firms are likely to act. Put another way, to act strategically

<sup>4</sup> Thomas C. Schelling, *op. cit.*, p. 3.

means taking into account the anticipated or expected actions of other actors when making a decision.<sup>5</sup>

The choice between litigation and settlement is also strategic in this sense because the outcome of a lawsuit depends upon both parties' choices. For example, when a plaintiff initiates a civil lawsuit against a defendant, the outcome of the case is not a sure thing. The outcome will depend on the evidence and arguments presented by both parties. In addition, one party's decision whether to settle or go to trial will often depend on the other party's decision whether to settle or go to trial.

Now that we understand the concept of strategic behavior, let's look at some examples of strategic behavior in litigation.

### **Strategic Behavior by Plaintiffs**

First, we'll look at strategic behavior by plaintiffs. One such behavior in litigation is **forum shopping**. It refers to the practice of choosing a court that is most likely to provide a judgment in one's favor.

The plaintiff enjoys a strategic advantage over the defendant when it comes to forum shopping, since it is the plaintiff who initiates a case by filing the complaint. The plaintiff will thus get to choose in which court to bring his action. Although the plaintiff is required to bring his action in a court located in a state that has some connection to the legal issues being litigated, since most business and

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<sup>5</sup> Game theory, a branch of mathematics, offers a systematic and formal way of thinking about strategic behavior. We will introduce a formal game theory model later in this chapter to illustrate some of the strategic aspects of litigation and settlement.

commerce occur across state lines, the plaintiff may have significant leeway in selecting a forum. Generally speaking, the plaintiff will prefer to bring his action in his home jurisdiction or in a court with a reputation for being “plaintiff-friendly.”<sup>6</sup> If the defendant lives in a different state or is overseas, the defendant will thus have to incur significant travel expenses to defend the case in the plaintiff’s home state.

### **Legal Speak**

*Forum Shopping:* The strategic practice of choosing a court that is most likely to provide a judgment in one’s favor.

### **Strategic Behavior by Defendants**

Defendants also can make some strategic moves. Maybe you’ve heard that “justice is blind.” You’ve probably never heard, however, that justice is fast! Many delays are the product of court congestion: There are a limited number of judges and courtrooms to handle a large amount of cases. But some delays are tactical or strategic in nature.

Ordinarily, for example, the defendant is required to submit an “answer” or formal response to the plaintiff’s complaint within a certain number of days after being served with the complaint.<sup>7</sup> The defendant, however, can extend this time period significantly by filing a “motion to dismiss” instead. By filing a motion to dismiss, the defendant is able to buy additional time to submit her answer to the

<sup>6</sup> Over the years, some courts have developed a reputation for being “plaintiff-friendly” or for awarding larger-than-average damage awards to plaintiffs in certain types of cases. The federal court located in Marshall, Texas, for example, is a popular forum for patent infringement cases, since the plaintiff’s win rate in this court almost 80% of the time, while the national average is closer to 60%. See Julie Crewell, “So small a town, so many patent suits,” *N.Y. Times*, Sept. 24, 2006.

<sup>7</sup> See Chapter 5.



complaint. The time period for submitting the answer will not begin to run until after the court has ruled on the merits of the defendant’s motion to dismiss. In addition, there are many opportunities for delay during the discovery phase of litigation.<sup>8</sup>

Delay generally works to the defendant’s advantage because of the temporal (time) dimension of litigation. The longer it takes for a case to go to trial, the longer the plaintiff must wait to win a judgment and recoup his investment in the case.

### **THEORY TO PRACTICE**

Consider the pre-trial moves in the case of *ConnectU v. Facebook*. In that case, Tyler and Cameron Winklevoss, the founders of The Harvard Connection (a social network later renamed ConnectU) sued Mark Zuckerberg, the creator of Facebook. In sum, the Winklevoss twins alleged in their complaint that Mark Zuckerberg stole their idea when he launched Facebook from his Harvard dorm room.<sup>9</sup>

At the time they brought their civil action against Facebook, Tyler and Cameron Winklevoss were living in Greenwich, Connecticut; Mark Zuckerberg was already living in Palo Alto, California.

1. Why didn’t the Winklevoss twins sue Mark Zuckerberg and Facebook in a California court?
2. Check out the very top of the first page of the ConnectU Complaint in Appendix XX. Did the Winklevoss engage in “forum shopping” in this case?

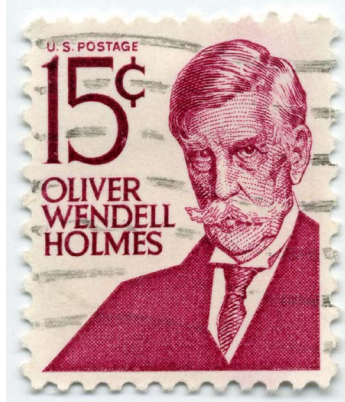
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<sup>8</sup> *Ibid.*

<sup>9</sup> For your reference, ConnectU’s Complaint is included at the end of this textbook in Appendix XX.

## THE SETTLEMENT RANGE

“The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law.”<sup>10</sup>



The expectations of the parties—or their “prophecies” of what judges and juries will do, to borrow the poetic phrase of Justice Oliver Wendell Holmes (pictured above)—play a critical role in deciding whether to settle or go to trial.

Previously, we introduced the strategic choice between litigation and settlement. Here, we consider another critical question: What determines the *settlement range* in any given case? In summary, the main determinant of settlement in any given case is what the parties themselves expect to gain or lose from going to trial.

### Zone of Possible Agreement

One of the most interesting features of litigation is that litigation is not just about conflict. Litigation also opens up the possibility of cooperation through settlement.<sup>11</sup>

That is, litigation can be modeled as a game involving a complex mixture of conflicting and common interests. It’s obvious that the parties are in conflict: The

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<sup>10</sup> Oliver Wendell Holmes, “The Path of the Law,” *Harvard Law Review*, vol. 10, no. 8 (1897), pp. 460-461. (Image courtesy of Wikipedia: [http://en.wikipedia.org/wiki/Oliver\\_Wendell\\_Holmes,\\_Jr.](http://en.wikipedia.org/wiki/Oliver_Wendell_Holmes,_Jr.))

<sup>11</sup> We can thus refer to litigation as a “mixed conflict-cooperation game” or “mixed-motive game.” See Thomas C. Schelling, *The Strategy of Conflict*, 2nd edition (Harvard University Press, 1980), pp. 86 & 89.

plaintiff, after all, is suing the defendant and would like to obtain as much money damages as he is entitled to. The defendant, in turn, would like to minimize the amount of damages. However, the parties also share a common interest in avoiding the risk and costs of going to trial. In short, they may in many cases share a common interest in reaching a mutually beneficial settlement out of court. Settlement negotiations are thus a form of *bargaining*, an informal process in which the parties to a lawsuit attempt to negotiate an out-of-court settlement that is beneficial to both parties.

Yet, even though the parties share some common interests, they are still in conflict. After all, from a plaintiff's perspective, why should he agree to a low settlement offer if there is a chance he could win it big at trial? Likewise, from a defendant's point of view, why should she agree to pay a large settlement when she may not have to pay anything if she wins at trial (or on appeal)?

In order for settlement negotiations to succeed, both parties must agree that an out-of-court settlement is in their mutual interest. That is, there must be an overlap between what the defendant is willing to pay and what the plaintiff is willing to accept. In summary, there is a mutually beneficial **settlement range** when the minimum amount or price that the plaintiff is willing to accept to settle his case out-of-court is less than the maximum price the defendant is willing to pay to settle the case.

We can picture the settlement range or *zone of possible agreement* (ZOPA) as follows:

#### **FIGURE 5A.1 Settlement Range, or ZOPA**



In this diagram,<sup>12</sup> the blue rectangle represents the amount of money the defendant is willing to pay to settle the case out of court. The yellow rectangle represents the amount of money the plaintiff is willing to accept to settle out of court. The green rectangle represents the settlement range (or zone of possible agreement) in which a mutually beneficial agreement is possible.

But how do we formally calculate this settlement range? The settlement range depends crucially on what the parties to a case expect to gain or lose from going to trial. Specifically, the settlement range is a function of two crucial factors: *liability* and *damages*.

### **Liability**

**Liability** (in law) refers to a person's or business firm's legal responsibility for its wrongful acts or for the wrongful acts of certain third parties. Did the defendant or one of the defendant's agents breach a legal duty or harm the plaintiff in some unlawful way?

<sup>12</sup> Diagram courtesy of Joseph Neurauter: <http://strategicaccords.com/go-ahead-make-the-first-salary-offer/>.)

The legal liability of a defendant, however, is not always clear-cut or obvious. Again, consider the case of ConnectU vs. Facebook. According to the facts alleged in ConnectU’s complaint, Mark Zuckerberg, then a sophomore at Harvard, had initially agreed to help Tyler and Cameron Winklevoss launch their website The Harvard Connection in the fall of 2003. The complaint also alleges that the Winklevoss twins shared their source code and other trade secrets with Mr Zuckerberg during this time. But would the Winklevoss twins be able to prove that Mr Zuckerberg used their code or stole their trade secrets when he launched “The Facebook” from his dorm room on February 4, 2004?

In short, the issue of liability is often a probabilistic one. The ultimate question on liability is, “What are the odds that the plaintiff can prove that the other party is legally liable?” In a close case, each party might assign odds of 50:50 to a finding of liability. Or, the parties may have different probability estimates about whether the defendant will be found liable.

### **Legal Speak**

*Liability:* A party’s legal responsibility for his or her wrongful acts.

### **Damages**

Legally speaking, the concept of **damages** refer to the amount of monetary compensation a plaintiff is awarded when a defendant is found liable for a legally recognized harm suffered by the plaintiff. The plaintiff is usually required to spell

out his damages in his complaint, but just because you ask for something does not mean you will get the full amount you are asking for.

There is no one formula for calculating money damages. Damages depend on the extent and severity of the plaintiff's injuries and also on the type of case being litigated. Consider, for example, a car accident case involving an injured plaintiff. If the plaintiff can prove that the defendant is solely liable for his injuries, the plaintiff will potentially be entitled to:

- (i) his out-of-pocket expenses for past and future medical bills
- (ii) lost wages—the difference between how much the plaintiff would have made were he not injured and how much he can earn now
- (iii) compensation for his pain and suffering and emotional distress resulting from the car accident.

This third category of damages is often called “non-economic damages.” Unlike medical expenses and lost wages, pain and suffering/emotional distress damages are left to a jury to decide.

Furthermore, the parties may often disagree about how to value the plaintiff's damages. Non-economic damages in particular (“pain and suffering”) can be very subjective and hard to prove. The amount of lost wages can also be a matter of controversy, especially if the plaintiff is still in school or is self-employed. Medical expenses too can generate disagreement; the defendant might dispute some medical treatments as unnecessary or excessive.

In short, damages can be hard to pin down or estimate, especially when the parties disagree on how much the plaintiff's case is worth. Yet both parties try to

estimate damages from an *ex ante perspective*—i.e., before a case goes to trial. A good rule of thumb is to visualize damages as consisting of a range. The range starts at zero (if the jury rules for the defendant) and goes all the way up to the plaintiff's most optimistic assessment (the full amount of damages the plaintiff is asking for in his complaint). The inherent uncertainty about both liability and damages, combined with the cost of litigation, is what makes litigation and settlement a strategic decision.<sup>13</sup> We will formally model this decision in the next section of this chapter.

### **Legal Speak**

*Damages:* The amount of monetary compensation a plaintiff is awarded when a defendant is found liable for a civil wrong.

## **TAKE AWAY CONCEPTS**

### **Overview of the Settlement Range**

- In deciding whether to settle or go to trial, each party must first try to figure out the settlement range of the case. If you are the plaintiff, you must ask yourself, “What is the least amount of money I am willing to accept in order to settle my case out of court?” If you are the defendant, you must ask, “What is the most I am willing to pay to settle?”
- The settlement range of a case, in turn, is a function of the parties' expectations about liability and damages.
- Damages can be hard to pin down or estimate, especially when the parties disagree on how much the plaintiff's case is worth. A good rule of thumb

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<sup>13</sup> The uncertainty and costliness of litigation is why we compared the decision of going to trial to the act of placing a bet earlier in this chapter.

when we try to estimate damages from an ex ante perspective—i.e., before a case goes to trial—is to visualize damages as consisting of a range starting from zero (if the jury rules for the defendant) and going all the way up to the plaintiff’s most optimistic assessment (the full amount of damages the plaintiff is asking for in his complaint).

### **THEORY TO PRACTICE**

Let’s return to the case of ConnectU v. Facebook. In that case, Tyler and Cameron Winklevoss—the founders of The Harvard Connection, an exclusive social network website for Harvard students (and later renamed “ConnectU”)—sued Mark Zuckerberg and Facebook for copyright infringement, theft of trade secrets, and other legal causes of actions.<sup>14</sup>

For this exercise, let’s just focus on the copyright infringement claim. Under U.S. copyright law, registered copyright owners who can prove infringement are entitled to recover not only “actual damages” but also any lost profits resulting from the infringement.<sup>15</sup>

Returning to our example, how would you expect a jury to calculate actual damages and lost profits in a case like ConnectU v. Facebook if this case were to go to trial today? Assuming ConnectU could prove infringement (a big “if,” as we saw previously), the damages in this case could potentially be astronomical—in the billions of dollars even, given the value of Facebook today. By way of example, in

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<sup>14</sup> For your reference, ConnectU’s Complaint is included at the end of this textbook in Appendix XX.

<sup>15</sup> See 17 U.S. Code § 504(b). In addition, plaintiffs who can prove *willful* or *intentional* infringement are also entitled to damages up to \$150,000 for every separate work that is copied without authorization. See 17 U.S. Code § 504(c)(2). Cf. allegation #48 in the ConnectU complaint in Appendix X in which the plaintiff Connect U alleges that “the actions of [the defendant Facebook] ... have at all times relevant to this action been willful and knowing.”



2014 Facebook reported making \$2.91 billion in revenue, and its market capitalization is now close to \$200 billion.

So, if you were in Mark Zuckerberg’s shoes, and you were sued for copyright infringement, what would you do? Would you prefer to take your chances and go to trial, or would you prefer to avoid the uncertainty and expense of litigation by settling this case out of court?

By the same token, if you were in the shoes of the Winklevoss twins, what course of action would you prefer?

1. Evaluate the stakes of this case and explain whether this is a high-stakes or low-stakes case.
2. From ConnectU’s perspective, how much do you think this case is worth?
3. On a scale of 1 to 10 (with 1 being “not likely at all” and 10 being “very likely”), if this case were to go to trial, how probable is it that Mark Zuckerberg would be found liable for copyright infringement or for theft of trade secrets?
4. If you were in the shoes of Mark Zuckerberg, would you rather settle or go to trial? Also, what would be the most you would be willing to pay ConnectU to settle this case out of court?
5. If you were in the shoes of the Winklevoss twins, would you rather settle or go to trial?

## A FORMAL MODEL OF LITIGATION AND SETTLEMENT

“Essentially, all models are wrong, but some are useful.”<sup>16</sup>



In this section, we will build a simple model of litigation and settlement and explain why this model is useful. In short, our model will help us determine whether there is a viable settlement range for the parties to settle their case out of court.

### The Model

Before proceeding any further, let’s explain what a model is and why models can be useful. In general, a **model** is a thought-experiment, an artificial and abstract recreation of a real-world situation. Because models are abstract and simple, it’s tempting to dismiss models as contrived or pointless. But models can be useful for several reasons. To begin with, models make us better thinkers. Models impose discipline on our thinking, forcing us to state our assumptions up front. Models also help us classify and use data. Most importantly, models help us test our intuitions and beliefs about the world. In sum, models help us become clearer thinkers and

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<sup>16</sup> George E.P. Box and Norman R. Draper, *Empirical Model Building and Response Surfaces* (John Wiley & Sons, 1987), p. 424. (Image of model Darya Strelnikova courtesy of Wikimedia Commons: [https://upload.wikimedia.org/wikipedia/commons/9/9d/57599-y\\_N2013YIZZyIp\\_WOc635Q.jpg](https://upload.wikimedia.org/wikipedia/commons/9/9d/57599-y_N2013YIZZyIp_WOc635Q.jpg).)

better decision-makers.<sup>17</sup> A model can be a useful way of formally representing a strategic situation, such as the decision whether to settle or go to trial.

With this background in mind, let's build a simple model of litigation and settlement.

First, let's assume the plaintiff's expected gain from going to trial is the judgment if he wins, discounted by the plaintiff's estimate of his probability of winning, minus his litigation costs. This general idea can be stated formally:

$$J_p = (J \times P_p) - C$$

(Note that we subtract the plaintiff's litigation costs,  $C$ , from his expected gain,  $J \times P_p$ , since he must pay his lawyer in order to take his case to trial and collect the judgment.]

Let's also assume the defendant's expected loss from going to trial is the judgment if she loses, discounted by the defendant's estimate of the plaintiff's probability of winning, plus her litigation costs. Again, this can be stated formally as:

$$J_d = (J \times P_d) + C$$

(Here we add the defendant's legal fees to her expected loss because the defendant must pay her own legal fees even if she loses the case.)

For simplicity, let's make certain assumptions: (1) The parties are risk-neutral. (2) They share the same valuation of the case--that is, both sides think the case is worth  $J$ . And (3) that the costs of going to trial,  $C$ , are the same for both sides. In other words, let's hold the variables  $J$  and  $C$  constant, in order to focus on  $P_p$  and

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<sup>17</sup> See generally Joshua M. Epstein, "Why Model?," Santa Fe Institute Working Paper 2008-09-040, available at <http://www.santafe.edu/media/workingpapers/08-09-040.pdf>.

$P_d$ —each party's respective probability estimates of the plaintiff's chances of winning. Given these simplifying assumptions, we would expect litigation to occur when the plaintiff's net expected gain from going to trial is greater than the defendant's expected loss from going to trial—in other words, when  $J_p > J_d$ .

This simple model of litigation and settlement is useful because it shows the crucial role the parties' probability estimates play in determining the size of the settlement range. In addition, this model also shows how the parties' probability estimates influence the decision whether to settle or go to trial.

Specifically, we would expect the parties to go to trial instead of settling when both sides are optimistic about their chances of winning if the case goes to trial—i.e., when  $P_p > P_d$ . Both parties will be willing to incur the costs of litigation, since both sides believe they will win.

By contrast, when both parties' probability estimates about the likely outcome of the case are the same (i.e., when  $P_p = P_d$ ), we would expect the parties to settle for some amount within the settlement range in order to avoid the costs of litigation.

Similarly, if the plaintiff is more pessimistic than the defendant about the likely outcome of the case (i.e.,  $P_p < P_d$ ), we would also expect the parties to settle to avoid the costs of litigation.

### **Numerical Example of Litigation and Settlement**

To illustrate this simple model of litigation and settlement, let's consider a numerical example in which  $J_p$  is greater than  $J_d$  ( $J_p > J_d$ ). Assume  $J$  is \$100 and  $C$  is \$30. Let's also assume that  $P_p$  is 0.9 and that  $P_d$  is 0.5. In other words, the plaintiff is

optimistic about his chances: He thinks he has a 90% chance of winning his case. The defendant is less confident about the outcome; she believes she has, at best, a 50% chance of winning.

Now, let's plug these values into our formal model of litigation and settlement. For the plaintiff:

$$J_p = (J \times P_p) - C$$

$$J_p = (\$100 \times 0.9) - \$30 = \$90 - \$30 = \mathbf{\$60}$$

Likewise, for the defendant:

$$J_d = (J \times P_d) - C$$

$$J_d = (\$100 \times 0.5) - \$30 = \$50 - \$30 = \mathbf{\$20}$$

In other words, the plaintiff thinks the case is worth \$60, given his probability estimate. The defendant believes the case is worth only \$20, given her probability estimate. Therefore, we would expect this case to go to trial because there is no room for a mutually beneficial agreement.

Next, consider a numerical example in which  $J_p$  is less than  $J_d$  ( $J_p < J_d$ ). Again, for consistency, let's assume that  $J$  is \$100 and  $C$  is \$30. This time, though, let's assume that the plaintiff is not as optimistic about winning as the defendant is, so  $P_p$  is 0.6 and  $P_d$  is 0.8. Plugging these values into our model, we see that:

$$J_p = (J \times P_p) - C = (\$100 \times 0.6) - \$30 = \$60 - \$30 = \mathbf{\$30}$$

and

$$J_d = (J \times P_d) - C = (\$100 \times 0.8) - \$30 = \$80 - \$30 = \mathbf{\$50}$$

We would thus expect this case to settle: The plaintiff thinks the case is worth \$30, while the defendant believes it's worth \$50. In other words, in this example there is

room for the parties to reach a mutually beneficial agreement to settle this case out of court.<sup>18</sup>

But what deal would we expect the parties to reach when there is room for a mutually beneficial agreement? Specifically, how would they divide this potential surplus if they settle out of court (i.e., the difference between \$30 and \$50 in this particular example)? There are two possibilities. One is that the parties might agree to “split the difference.” The other is that one or both of the parties might engage in a strategic game of chicken. We shall consider these two possibilities in the remainder of this chapter.

To recap, thus far we have seen that:

1. Settlement negotiations will not occur unless there is a mutually beneficial settlement range.
2. The settlement range depends crucially on the parties’ probability estimates of the outcome of their case if it goes to trial.

### **TAKE AWAY CONCEPTS**

- In general, the better a plaintiff expects to do if his case goes to trial—i.e., the more likely he believes he will win and the greater the amount of damages he expects to recover—the greater the settlement amount he will have to be paid as a condition for agreeing to settle.
- By contrast, the better a defendant expects to do if the case goes to trial, the less she will be willing to pay to settle the case.

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<sup>18</sup> Instead of explaining what happens when  $J_p = J_d$ , we leave this as an end-of-chapter exercise for the student to work on. See Question No. 7 on p. XX.

- Divergent party beliefs about the likely outcome of trial make it more likely a bargaining impasse will occur—i.e., more likely the case will go to trial.

### ✓Self-Check

#### Finding the Settlement Range

1. Does the scenario below have a settlement range? If so, what is it?

- \* Plaintiff sues defendant for \$1 million.
- \* Legal fees will cost each side \$100,000 if the case goes to trial.
- \* Each side believes that the chance of plaintiff winning at trial is  $\frac{1}{2}$ .

2. Does the scenario below have a settlement range? If so, what is it?

- \* Plaintiff sues defendant for \$1 million.
- \* Legal fees will cost each side \$100,000 if the case goes to trial.
- \* Plaintiff believes his chance of winning is  $\frac{3}{4}$ .
- \* Defendant believes the plaintiff's chance of winning is only  $\frac{1}{4}$ .

*Answers to this Self-Check are provided at the end of the chapter.*

## LITIGATION AS BARGAINING

*“It’s just as unpleasant to get more than you bargained for as to get less.”*<sup>19</sup>

Previously, we saw that settling out of court has the advantage of allowing the parties to avoid the risks and costs of litigation. At a minimum, a settlement agreement will generate a surplus for the parties in the form of saved litigation costs. But how will the parties divide this surplus?

In brief, the existence of a settlement range itself does not tell us what price the parties will settle for.<sup>20</sup> One possibility is for the parties to “split the difference” by choosing the midpoint of the settlement range.

### Splitting the Difference

In our formal model of litigation and settlement, we were able to calculate both parties’ financial expectations from going to trial:

- The plaintiff’s expected gain is the judgment if he wins, discounted by the plaintiff’s estimate of his probability of winning, minus his litigation costs, or  $J_p = (J \times P_p) - C$ .
- The defendant’s expected loss is the judgment if she loses, discounted by the defendant’s estimate of the plaintiff’s probability of winning, plus her litigation costs, or  $J_d = (J \times P_d) + C$ .

<sup>19</sup> George Bernard Shaw, as quoted in Mina Parker, *Less Is More: Meditations on Simplicity, Balance, and Focus* (Conari Press, 2009), p. 23. This quote, attributed to Irish playwright George Bernard Shaw, nicely illustrates the so-called “axiomatic approach” to bargaining developed by mathematician John Forbes Nash. See John F. Nash, Jr., “The Bargaining Problem,” *Econometrica*, 18, no. 2 (1950), pp. 150-162

<sup>20</sup> See, e.g., Richard A. Posner, *Economic Analysis of Law*, 6th edition (Aspen Publishers, 2003), p. 568 (“the existence of a range means that there is no unique settlement price”) (emphasis in original).



In other words, without settlement, the plaintiff's payoff is  $J_p$ , and the defendant's is  $J_d$ . Thus,  $J_p$  and  $J_d$  represent the “outside options” or “disagreement values” of the parties.

Lastly, let's also assume that each party earns  $S$  if it is able to settle the case out-of-court.

Mathematician John Forbes Nash, whose pioneering work in game theory earned him a Nobel prize, developed what he called the *axiomatic approach* to bargaining. This approach predicts that the parties to a lawsuit will agree to “split the difference” by settling at the midpoint of the settlement range. If the gains from bargaining are positive—that is, if  $S - (J_p + J_d) > 0$ —then the axiomatic approach predicts that such gains will be split evenly by the parties as follows:

The plaintiff obtains:  $J_p + [S - (J_p + J_d)]/2 = (S + J_p - J_d)/2$

Similarly, the defendant obtains:  $J_d + [S - (J_p + J_d)]/2 = (S + J_d - J_p)/2$

This model of bargaining shows that each player's share of the split depends on two estimates:

(1) how much the settlement agreement itself is worth

(2) the parties' “outside options” ( $J_p$  and  $J_d$ ) or alternatives to settlement—

that is, what the parties expect to gain or lose if the case goes to trial.<sup>21</sup>

## Lessons

This axiomatic result (i.e., “split the difference”) allows us to see the importance of the parties' outside options in litigation. Before a plaintiff actually files his complaint

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<sup>21</sup> See generally Bruce L. Hay and Kathryn E. Spier's entry for “Litigation and Settlement” in *The New Palgrave Dictionary of Economics and the Law*, Vol. Two (Palgrave Macmillan, 1998).

or sends a demand letter to the defendant,<sup>22</sup> the defendant has less to gain to by reaching agreement, since the possibility of litigation is still remote. But after the plaintiff files a complaint or after he signals his intent to file a complaint through a demand letter, the defendant has more to gain by reaching agreement. Moreover, the more likely the plaintiff will win his case, the stronger the plaintiff's outside option is. In that situation, he can become a tougher bargainer, since he has less to gain by reaching agreement than by going to trial.

The general logic of this analysis is as follows: When one party has a good alternative to settlement—i.e., a high probability of winning if the case goes to trial—we would expect that party to be less eager to settle out of court. Why? Because that party's potential gain to reaching an agreement is smaller than the other party's potential gain. Put another way, the other party has more to lose if the case goes to trial.

This result also tells us how litigation costs might shape the outcome of bargaining in settlement negotiations. Previously, we assumed that the costs of going to trial were the same for both parties, but in reality, one party may have greater litigation costs than the other. For simplicity, let's assume the litigation costs of the plaintiff are twice as large as the litigation costs of the defendant and that both sides estimate the plaintiff's chances of winning if the case goes to trial at 50/50. Given these assumptions, the plaintiff now has more to gain by reaching agreement, since he will avoid the cost of  $2C$  if he settles out of court.

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<sup>22</sup> See Chapter 5.

In general, the axiomatic view of bargaining tells us that when one party has more to gain by reaching agreement, he is in a weaker bargaining position than the other side, all other things being equal.

But what if the parties disagree about the values of their outside options or their alternatives to settlement? Because litigation is costly and uncertain, we conclude this chapter with a strategic model of litigation and settlement.

## TAKE AWAY CONCEPTS

### Overview of litigation as bargaining

- Settlement negotiations are form of bargaining.
- One method of bargaining is to “split the difference.”
- The view of litigation and settlement as bargaining emphasizes the “outside options” or alternatives to settlement of the parties.
- When a party has less to gain by reaching agreement, he is in a stronger bargaining position than the other side.
- The plaintiff, for example, will obtain a more favorable settlement than otherwise if his outside option of going to trial is better than the defendant’s (i.e., if  $J_p > J_d$ ).
- By the same token, when one party has more to gain by reaching agreement (because his chances of winning at trial are low or because his litigation costs are high or both), he is in a weaker bargaining position than the other side.

## LITIGATION AS A STRATEGIC GAME OF CHICKEN

*“When two dynamite trucks meet on a road wide enough for one, who backs up?”<sup>23</sup>*



In many ways, litigation is like a strategic “game of chicken”: Each side can threaten to go to trial, thus forcing the other side to either capitulate or incur substantial litigation costs. In this section, we describe how the game of chicken works and then build a strategic model of litigation and settlement.

### **The Game of Chicken**

Formally, the game of chicken is a strategic interaction involving two players in which: (1) each player prefers not to back down or yield to the other, and (2) the worst possible outcome occurs when neither player yields to the other. We can visualize the game of chicken by imagining two dynamite trucks, both headed toward a narrow single-lane bridge from opposite directions. If both drivers stop their trucks before reaching the bridge, they both look “chicken” and lose face. If

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<sup>23</sup> Thomas C. Schelling, “An Essay in Bargaining,” *op. cit.*, p. 21. (Image courtesy of Wikimedia Commons: [https://upload.wikimedia.org/wikipedia/commons/e/ef/Trains\\_after\\_a\\_head-on\\_collision.jpg](https://upload.wikimedia.org/wikipedia/commons/e/ef/Trains_after_a_head-on_collision.jpg).)

both refuse to budge, however, the result is that both risk serious injury or death. So, who backs down?

The cult classic film *Footloose* features a scene with the actor Kevin Bacon playing a game of chicken.<sup>24</sup> In the movie, Kevin Bacon plays a high school student named Ren McCormack. Ren falls for a rebellious girl named Ariel Moore (played by the actress Lori Singer). Ariel has a jealous boyfriend, a high school bully called Chuck Cranston (played by Jim Youngs), who dares Ren to play a game of chicken on tractors. Table 5A.1 describes the payoffs of this game.

**TABLE 5A.1 Payoffs of the Game of Chicken in the Movie *Footloose***

	Good Guy (Kevin Bacon) Drive Straight	Good Guy (Kevin Bacon) Swerve
Bad Guy (Bully) Drive Straight	<i>Both players lose because they crash into each other</i>	<i>The Bully wins; the Good Guy is the Chicken</i>
Bad Guy (Bully) Swerve	<i>The Good Guy wins; the Bully is the Chicken</i>	<i>Both players swerve at the same time, but no one is hurt</i>

*Spoiler alert:* In the tractor scene, Ren ends up winning the contest when his shoelaces get tangled up in the gears, preventing him from jumping off his tractor. Chuck realizes that Ren is stuck, so he bails out of his tractor to avoid a head-on collusion.

Litigation is in many ways like a game of chicken. Ideally, both sides would prefer to avoid the costs and uncertainty of litigation by settling out of court. Although the parties might be expected to “split the difference,” each side would prefer to settle on the most favorable terms possible—i.e., closer to his or her side of

<sup>24</sup> You can watch this scene for yourself on YouTube. See <https://www.youtube.com/watch?v=pwGQDtC-h18>.

the settlement range. Moreover, since each side can threaten to go to trial and thus force the other side to incur substantial litigation costs, we can model settlement negotiations as a game of chicken.

### **Strategic Model of Litigation and Settlement**

Now that we understand intuitively (in words) how this strategic game generally works, let's model litigation and settlement as a game of chicken.

To illustrate this strategic model, imagine a hypothetical case involving two parties: a plaintiff suing for copyright infringement and a defendant accused of copyright infringement. For simplicity, let's assume the case is worth  $J$ , and the cost of going to trial is  $C$ . That is,  $J$  is the most likely amount the plaintiff can expect to collect in money damages if the case goes to trial. Since there are only two possible strategies in this game—"settle" or "go to trial"—there are four possible outcomes in this litigation game:

1. Both parties decide to go to trial.
2. Both parties decide to settle.
3. The plaintiff decides to capitulate at the last moment.
4. The defendant decides to capitulate at the last moment.

Let's consider each outcome.

1. *Both parties decide to go to trial*

In a real game of chicken, this outcome occurs when both drivers decide to "drive straight" and thus end up crashing into one another head on. Neither driver is the "chicken," but both drivers pay a cost  $C$  because both of their cars are totaled.

In the context of litigation, if both parties decide to go to trial, both parties will have to incur substantial legal fees because going to trial involves a lot of time and effort. Let's assume the plaintiff will have to pay his lawyers  $C_P$ , while the defendant will have to pay her lawyers  $C_D$ . For simplicity, let's also assume that  $C_P = C_D = C$  and that  $J$  is greater than  $C$ . So if the jury returns a verdict for the plaintiff, the plaintiff will receive  $J - C$  or the difference between  $J$  (the stakes or what the case is worth) and  $C$  (the plaintiff's legal fees).

*2. Both parties decide to settle*

In the game of chicken, this outcome occurs when both drivers decide to “swerve.” In the context of litigation, if both parties decide to settle their dispute out-of-court, the parties will not incur any additional legal fees ( $C = 0$ ) and will instead “split the difference.” Specifically, since the case is worth  $J$ , the plaintiff will collect  $J/2$  and the defendant will pay  $J/2$ .

*3. The plaintiff decides to capitulate at the last moment*

This outcome occurs when one driver decides to “swerve” at the last possible moment. The driver who “swerves” is the chicken, while the driver who does not flinch is deemed the winner of the contest.

In the litigation context, we would expect the party who credibly and effectively threatens to go to trial at all costs to end up with a better settlement offer when the other party capitulates. For simplicity, assume that when it's the plaintiff who capitulates (i.e., the plaintiff is the “chicken”), then the defendant will have to pay only  $J/4$  instead of  $J/2$  to the plaintiff.

*4. The defendant decides to capitulate at the last moment*

By contrast, if the defendant decides to capitulate (is the “chicken”), then the defendant will have to pay  $3J/4$  to the plaintiff.

We can restate the payoffs of this strategic game using a normal-form payoff table. In summary, each quadrant in Table 5A.2 below sets forth the respective payoffs to the parties associated with each possible outcome of this strategic game:

**TABLE 5A.2 Payoffs of the Game of “Litigation Chicken”**

	Plaintiff Go to Trial	Plaintiff Settle
Defendant Go to Trial	$J - C$ $J - C$	$3J/4$ $J/4$
Defendant Settle	$J/4$ $3J/4$	$J/2$ $J/2$

How will this game of “litigation chicken” play out? Of the four possible outcomes, which one is most likely to occur? Stated formally, does this strategic game have an equilibrium?

The short answer is, “it depends.” That is, in this simple model of litigation and settlement, it depends on how big  $C$  is relative to  $J$ . For simplicity, let’s assume an extreme case in which  $J = C$ .<sup>25</sup>

First, let’s look at this case from the plaintiff’s perspective:

When  $C = J$ , the plaintiff’s payoff of going to trial is 0. Thus, if both parties are threatening to go to trial, the plaintiff could do better by capitulating, since  $J/4$ , though small, is still greater than 0.

<sup>25</sup> Later, we will examine a more realistic example in which  $J > C$ .



What if, however, both parties are willing to settle by splitting the difference? In this scenario, the plaintiff is now better off playing hardball by threatening to go to trial, since  $3J/4$  is a better settlement for the plaintiff than  $J/2$  is.

Now let's consider the case from the defendant's perspective:

If both parties are threatening to go to trial, the defendant could do better by capitulating, since  $3J/4$ , though a large payout, is still less than  $C$ , since  $C = J$ . And by the same token, when both parties are willing to split the difference, the defendant should play hardball (i.e., threaten to go to trial) because  $J/4$  is less than  $J/2$ . In other words, the defendant is able minimize her exposure from the case by playing hardball when the plaintiff is willing to settle (i.e., capitulate) instead of going to trial.

We thus have two possible equilibria in this game! In one, the plaintiff threatens to go to trial and the defendant capitulates. In the other, the defendant threatens to go to trial and the plaintiff capitulates. So, which one will predominate? Again, "it depends." It depends on which party is able to credibly commit to its threat of taking the case to trial. To see this, let's take a look at a numerical example.

### **Numerical Example of Litigation as a Game of Chicken**

Let's illustrate this model with a numerical example. Assume a plaintiff is suing a defendant, alleging damages of \$100. If the case goes to trial, each side will incur legal fees of \$30 under the American rule.<sup>26</sup> As before, there are four possible outcomes:

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<sup>26</sup> By the way, although the legal fees in this example (\$30) represents 30% of the case's value and may thus seem excessive, contingency fee agreements in which the plaintiff's lawyer takes 33% of the plaintiff's judgment if the plaintiff wins are quite common in many places.

1. If both parties go to trial, the outcome is uncertain. For simplicity, let's assume this is a close case, so each side has 50% chance of winning (and a 50% chance of losing) if the case goes to trial. As a result, the plaintiff's expected gain from going to trial is  $(J \times P_p) - C$ , or  $(\$100 \times 0.5) - \$30 = \$20$ . By the same token, the defendant's expected loss from going to trial is  $(J \times P_d) - C$ , or  $(\$100 \times 0.5) - \$30 = \$20$ .

2. If both parties agree to settle, they "split the difference": The defendant agrees to pay the plaintiff \$50 to settle the case, and both parties avoid incurring additional legal fees.

3. If the plaintiff remains resolute—threatening to take the case to trial no matter what—and the defendant capitulates, the plaintiff will be able to extract a favorable settlement offer of \$75 from the defendant. (Both sides avoid legal fees.)

4. If the defendant remains resolute and the plaintiff capitulates, the plaintiff will be able to extract only a small settlement offer of \$25 from the defendant. (Again, both sides avoid legal fees.)

Table 5A.3 below sets forth the payoffs of this game in numerical form.

**TABLE 5A.3**

	Plaintiff Go to Trial	Plaintiff Settle
Defendant Go to Trial	20	75
Defendant Settle	25	50

In this table we see that this litigation game has the same logical structure as the game of chicken. If both parties agree to settle out-of-court by "splitting the

difference” (outcome 2 in the list above), they split the gains from trade and avoid the legal costs and uncertainty of going to trial. But this outcome is not a stable equilibrium point; either party can do better by threatening to go to trial. Nor is outcome 1 a stable equilibrium: If both parties threaten to go to trial, either side could do better by capitulating.

Because there is no single “best response” or “dominant strategy” in this game, we would expect both parties to try to steer the game to their preferred outcome—one in which the other party capitulates. But how?

One way to get your adversary to capitulate is by making a *credible threat*, or a credible commitment. A threat or commitment is credible when one party can persuade the other that it will actually carry out the threat or commitment if called upon to do so. In this case, it means convincing the opposing party that you are prepared to go to trial no matter what. If you can convince the other side that you are going to trial, regardless of what your adversary does, he or she will do better by capitulating.

Modeling litigation and settlement as a game of chicken teaches us several important lessons. One lesson is that chicken is a very dangerous game. If both parties to a lawsuit refuse to back down or compromise, they will both end up incurring additional litigation costs as well as the risk and uncertainty of going to trial.

The other lesson is that there can be strength in weakness. By relinquishing one’s options—by openly and credibly committing to go to trial at all costs—our

strategic model predicts that the other side will have a strong incentive to back down and capitulate to your demands.

But how does one credibly commit to take one's case to trial "no matter what"? After all, many settlement agreements often occur at the eleventh hour on the eve of trial. Knowing this, neither party to a lawsuit is likely to accept at face value the other side's threat to take the case to trial.<sup>27</sup>

In the context of litigation, one way of making one's threat credible is to signal one's preference for going to trial by hiring an expensive expert witness or by retaining an attorney or a law firm with a well-known reputation for going to trial. Similarly, a party could publicly signal his preference or desire to go to trial as a matter of principle in order to get his proverbial day in court. But caution: Treating one's case as a matter of principle instead of as a matter of money only works if the other side believes you. What happens if the other side thinks you are bluffing?

## **TAKE AWAY CONCEPTS**

### **Overview of the Game of Chicken**

- In many ways, litigation is like a strategic game of chicken, since each side can always threaten to go to trial, thus forcing the other side to either capitulate or incur substantial litigation costs.
- Ideally, both sides would prefer to avoid the costs and uncertainty of litigation by settling out of court. But since each side can threaten to go to trial and thus force the other side to incur substantial litigation costs, we can model settlement negotiations as a game of chicken.

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<sup>27</sup> In economics, the making of an empty threat is known as "cheap talk."

- Modeling litigation and settlement as a game of chicken teaches us several important lessons. One lesson is that chicken is a very dangerous game. If both parties to a lawsuit refuse to back down or compromise, they will both end up incurring additional litigation costs as well as the risk and uncertainty of going to trial.
- The other lesson is that there can be strength in weakness. By relinquishing one's options—by openly and credibly committing to go to trial at all costs—our strategic model predicts that the other side will have a strong incentive to back down and capitulate to your demands.

## **KEY TERMS**

**Strategic behavior** p. XX To act strategically is to anticipate the actions of the other parties you are interacting with.

**Settlement range** p. XX The overlap or “zone of possible agreement” between what the plaintiff is willing to accept to settle his case out of court and what the defendant is willing to pay to settle the case.

**Outside option** p. XX The payoff a party to a lawsuit can expect to obtain if settlement negotiations fail and the case goes to trial.

**Models** p. XX A model is a way of formally representing a strategic situation, such as the decision whether to settle or go to trial.

**Bargaining** p. XX      The informal process in which the parties to a lawsuit attempt to negotiate an out-of-court settlement in order to avoid the uncertainty and costs of going to trial.

**Axiomatic view** p. XX      The axiomatic approach to bargaining, which was developed by John Forbes Nash, Jr., predicts the parties to a lawsuit will agree to “split the difference” by settling at the midpoint of the settlement range.

**Strategic view** p. XX      The strategic approach to bargaining views settlement negotiations as a strategic interaction, with the outcome depending largely on each party’s ability to make credible threats or commit to a firm bargaining position.

**Game of chicken** p. XX      A strategic interaction involving two players (such as the opposing parties to a lawsuit) in which the following two conditions hold: (i) each player prefers not to back down or yield to the other, and (ii) the worst possible outcome occurs when neither player yields to the other.

**Credible threat** p. XX      A threat is credible when one party can persuade the other that it will actually carry out the threat if called upon to do so.

**Cheap talk** p. XX      A threat is non-credible or “cheap talk” (i.e. an empty or idle threat) when it would not be in a party’s best interest to carry out the threat if called upon to do so.

[continued on next page]

## CHAPTER REVIEW QUESTIONS

**1. From a strategic perspective, what is the main advantage of going to trial?**

- a. Going to trial is risky.
- b. Going to trial is costly.
- c. Trial outcomes are uncertain. You could win, but you could also lose.
- d. None of the above.

**2. Which of the following best describes the American rule?**

- a. The losing side pays the attorney's fees of the winning side.
- b. The winning side pays the attorney's fees of the losing side.
- c. Each side pays his or her own attorney's fees regardless of who wins or loses.
- d. None of the above.

**3. The concept of civil liability refers to \_\_\_\_\_.**

- a. The defendant's legal responsibility for its civil wrongs.
- b. The prayer for relief in the plaintiff's complaint.
- c. The plaintiff's burden of proof in civil cases.
- d. The defendant's duty to assert any affirmative defenses he or she may have.

**4. Which of the following best describes when damages are awarded in civil cases?**

- a. Damages are paid by the defendant to the plaintiff only if the parties go to trial.
- b. Damages are paid by the defendant to the plaintiff only if the parties settle out of court.
- c. Damages are paid by the defendant to the plaintiff only if the defendant has been found liable for injuring the plaintiff.
- d. Damages are paid by the defendant to the plaintiff only if the defendant is unable to assert an affirmative defense.

**5. Consider a lawsuit in which the Plaintiff thinks she stands to gain up to \$500,000 in damages if he takes the case to trial, while the Defendant believes that the Plaintiff will win only up to \$100,000 in damages if the case goes to trial. Is this case likely to settle or go to trial? Explain.**

**6. Next, consider a lawsuit in which the Plaintiff thinks he will win up to \$300,000 in damages if he takes the case to trial, while the Defendant believes that the Plaintiff has a good chance of winning up to \$600,000 in damages if the case goes to trial. Is this case likely to settle or go to trial? Explain.**

7. In our simple model of litigation and settlement, we considered the case in which  $J_p > J_d$  and the case in which  $J_p < J_d$ . Now, consider the case in which  $J_p = J_d$ . What do you expect is more likely to occur in this scenario? Will the case go to trial, or will the parties settle? Explain.

8. For a threat to be effective in a strategic situation, the threat must be \_\_\_\_\_.

- a. credible
- b. incredible
- c. rational
- d. strategic

The following payoff table pertains to Questions 9 and 10.

	Plaintiff Go to Trial	Plaintiff Settle
Defendant Go to Trial	40 40	150 50
Defendant Settle	50 150	100 100

9. In the strategic game represented in the payoff table above, what is the Defendant's payoff when both parties agree to settle out of court?

- a. 40
- b. 50
- c. 100
- d. 150

10. In the strategic game represented in the payoff table above, what is the Plaintiff's payoff if he is able to make a credible threat that he is prepared to go to trial?

- a. 40
- b. 50
- c. 100
- d. 150



**✓SELF-CHECK ANSWERS**

1. There is a settlement range in this scenario, from \$400K at the low end up to \$600K at the high end. The plaintiff's expected gain if he takes his case to trial is \$400,000—a  $\frac{1}{2}$  probability of winning a \$1 million (\$500,000) minus his legal costs (\$100,000). The defendant's expected loss if the case goes to trial is \$600,000—a  $\frac{1}{2}$  probability of having to pay \$1 million (\$500,000), plus her legal costs (\$100,000).
2. There is no settlement range in this scenario because of the divergent beliefs of the parties. Specifically, the plaintiff's expected outcome is \$650,000; he believes he has a  $\frac{3}{4}$  probability of winning a \$1 million (\$750,000), minus his legal costs (\$100,000). The defendant's expected loss is \$350,000; she believes she has only a  $\frac{1}{4}$  probability of having to pay \$1 million (\$250,000), plus her legal costs (\$100,000).

**CHAPTER REVIEW QUESTIONS: ANSWERS AND EXPLANATIONS**

1. (d) The other answer choices are disadvantages of going to trial.
2. (c) Under the American rule, each side is responsible for its own legal fees and expenses, regardless of the outcome of the case.
3. (a) To be civilly liable, a person must commit a wrongful act, such as a tort, a breach of contract, or other civil wrong.
4. (c) Choice (a) is incorrect because even if the parties go to trial, the defendant might still win on the issue of liability.
5. This case is likely to go to trial because there is no mutually beneficial settlement range in the scenario presented in this question; the plaintiff in this scenario is far more optimistic about the likely outcome of the case than the defendant is.
6. Unlike the scenario in the previous question, this case is likely to settle out of court; there is a mutually beneficial settlement range in the scenario presented in this question.
7. When  $J_p = J_d$ , both parties agree on what the most likely outcome of the case is. Therefore, in this scenario it is in the mutual interest of the parties to settle in order to avoid the costs of litigation.
8. (a) Only credible threats are effective in strategic situations.
9. (c) The outcome in which both parties agree to settle their dispute out of court is represented in the bottom-right quadrant of the payoff table.

10. (d) If the plaintiff is able to make a credible threat to go to trial, it is in the defendant's interest to settle. This outcome is represented in the bottom-middle quadrant of the payoff table.

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