Chapter 6
An Economic Theory of Tort Law

I. Defining Tort Law

A. Intentional versus unintentional torts
An **intentional tort** is one in which the defendant intended to cause harm to the plaintiff by an act or failure to act. Many intentional torts are also crimes. Thus, we will address them as part of our economic analysis of criminal law. An **unintentional tort** refers to the situation in which someone has been harmed by someone else's act or failure to act which inadvertently caused the harm.

B. The economic essence of tort law
1. Tort law fills a gap in property law and contract law created by high transactions costs. Note that in certain instances, transactions costs prevent parties from reaching agreements on how to (1) avoid future conflicts over property rights or (2) establish a contract that allocates liability for future losses.

2. Harms that occur outside of private agreements are externalities. Tort law induces injurers to *internalize* such harms by making them liable for any losses that are incurred, i.e., the injurer must compensate the victim, when the proper level of care has not been exercised. This induces injurers to invest in the optimal level of precaution or safety.

C. The traditional theory of tort liability
There are three basic elements that must be present for a plaintiff to recover under the traditional theory of tort: (1) the plaintiff must have suffered a harm, (2), the defendant's act or failure to act must be the cause of the harm, and (3) the defendant's act or failure to act must constitute the breach of a duty owed to the plaintiff by the defendant.

1. *Harm*
Economically we can think of harm as something that moves the injured party to a lower level of utility (or profits in the case of a firm). Compensation would then be required to restore the injured party to their initial level of utility (or profit).

A sometimes difficult question concerns what constitutes "perfect compensation." (Note that is similar in concept to perfect expectation damages.) As the scope of perfect compensation has expanded so have the difficulties associated with assigning specific values to damages.
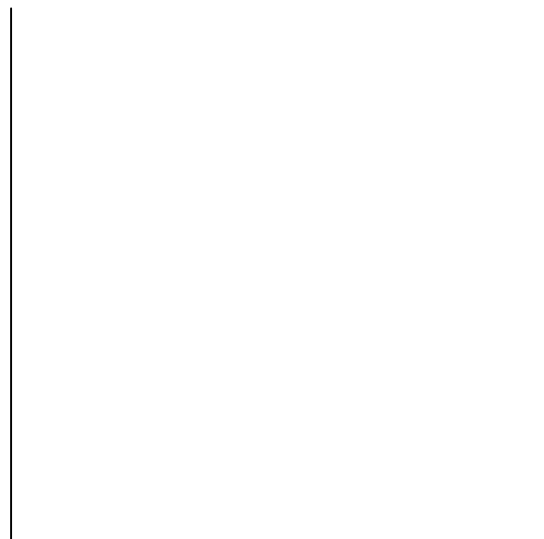
2. *Cause*
   Cause implies that the harm in question was the result of some action (or failure to act) on the part of the defendant. Two types of causes can be considered:
   - cause-in-fact which is determined by application of the "but-for" test, and
   - "proximate" cause

   There are problems with the but-for test when there are multiple causes of harm or in the case where distant causes can be related to the harm through too liberal an interpretation of the but-for test.

   The concept of "proximate" cause addresses some of the problems with the but-for test.

   From an economic perspective, the issue of cause can be represented by thinking in terms of interdependent utility or production functions and externalities. To be specific, cause in tort law typically involves an externality created by interdependent utility or production functions.

   Additional Notes: Fred and Liz

3. *Breach of duty*
   Generally speaking, someone breaches his duty owed to someone else when he fails to take an adequate level of care or precaution. In such cases, the defendant (injurer) is said to be at fault or negligent.
   - In extreme cases, the injurer may be held strictly liable. In this case, no level of care is adequate to protect the injurer.
   - In other cases, the injurer is *negligent* when she fails to take at least some minimum level of care as defined by law. This approach is reflected in the reasonable person standard.
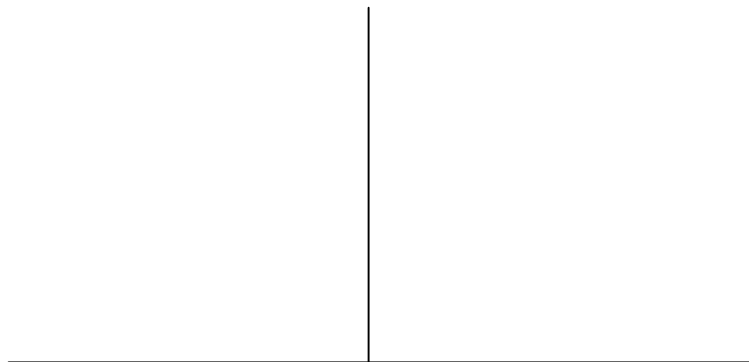
II. An Economic Theory of Tort Liability
An important question that motivates our analysis is, **"Who can take precaution to avoid an accident and how can we motivate each party to take the efficient level of precaution"?**

A. Minimizing the social costs of accidents

1. *The Calabresi Rule*: Structure the rules of tort liability so as to minimize the sum of precaution, accident and administrative costs. The expected social cost of an accident can be written as

$$SC = wx + p(x)A + AdCo$$

where w is the per unit cost of precaution, x is the level of precaution, p is the probability of an accident (and p is a function of x), A is the cost of the accident if it occurs, and AdCo is administrative costs. Note that p(x) gets smaller as x gets larger.

2. Graphic of SC

Using simple calculus (and ignoring AdCo), it can be shown that the optimal level of precaution, x*, occurs where

$$w = -(dp(x)/dx)A = -p'(x)A$$

The left side of the equation is the marginal cost of each unit of accident avoidance.

The right side of the equation is the marginal benefit of each unit of accident avoidance, i.e., the reduction in the expected cost of an accident, or *incremental expected value of harm avoided*.

Consider situations in which
- $x < x^* \Rightarrow MB > MC$; level of precaution should be increased
- $x > x^* \Rightarrow MB < MC$; level of precaution should be reduced

3. There are several different legal rules we can choose from:
   i. No liability
   ii. Strict liability
   iii. Various forms of a negligence rule

The question is: "Under what circumstances will each of these rules be efficient"?

B. Incentives for precaution under no liability and strict liability (*Unilateral* precaution)

Under either of these liability standards, only one of the two parties takes precaution (because only one of the two parties has any *incentive* to take precaution).

In the following analysis we assume:

i) each party wants to minimize $wx + p(x)A$

ii) $D = A$, i.e, damages are set equal to the value of the harm from the accident

1. *No liability*
   - Under the rule of *no liability* the injurer takes zero precaution because the only cost she needs to minimize is the cost of precaution. This is accomplished by setting the level of precaution at 0.
   - Under the rule of *no liability*, the victim will take the efficient level of precaution because the no liability rule induces the victim to internalize the marginal costs and benefits of precaution.

2. *Strict liability*
   - Under a rule of *strict liability* (with perfect compensation), the injurer will take the efficient level of precaution because the strict liability rule induces the injurer to internalize the marginal costs and benefits of precaution.
   - Under the rule of *strict liability* the victim takes zero precaution because she is indifferent between no harm and harm plus perfect compensation. The only cost she needs to minimize is the cost of precaution. This is accomplished by setting the level of precaution at 0. She externalizes the benefits of precaution (because the injurer is liable for any harms).

3. Summary

	No Liability	Strict Liability
Injurer		
Victim		

IMPLICATIONS: When only one of the two parties can take precaution, no liability is preferred when only the victim can take precaution and strict liability is preferred when the injurer can take precaution. (Consider what would happen if we did the opposite.)

C. Bilateral precaution
In this case, we assume that *both parties can take precautions to avoid the accident and that efficiency requires that both parties take some positive level of precaution*. In this case, the minimization problem can be stated as

$$SC = w_v x_v + w_i x_i + p(x_v, x_i)A$$

Under these conditions, neither a rule of no liability nor a rule of strict liability will induce the efficient level of precaution by both parties. Depending on the rule, one or the other parties will find it in their own interest to take 0 precaution, which contradicts the assumption stated above about the optimal level of care.

Under these conditions, we need to develop some kind of negligence rule to create the proper incentives for efficient behavior by *both* parties.

D. Incentives for precaution under a simple negligence rule
Begin by assuming that the negligence standard is set at the efficient level of precaution (x^*). The resulting situation is illustrated in Figure 2. Given the discontinuity in costs at x^*, the injurer will engage in the efficient level of precaution, because costs are minimized at this point. The victim also has efficient incentives because he will be liable for any costs when the injurer is not liable. Thus, the victim will behave as he would under a rule of no liability, i.e., he will undertake the efficient level of precaution.
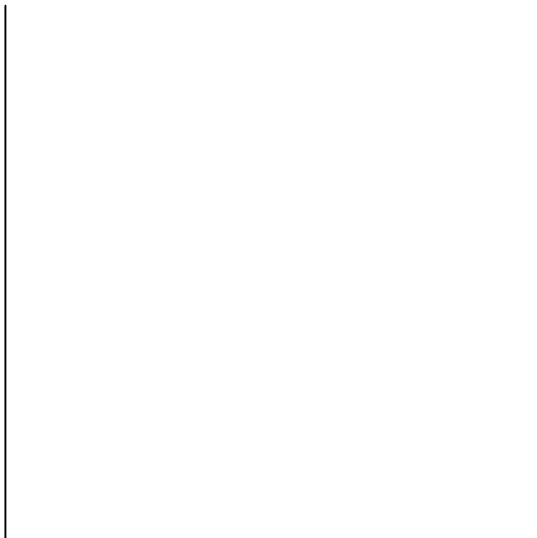
E. Contributory negligence and comparative negligence
The negligence rule can take several different forms, including
- ***simple negligence***
injurer at fault $(x_i < x_i^*) \Rightarrow$ injurer liable
injurer faultless $(x_i \geq x_i^*) \Rightarrow$ injurer not liable

- ***negligence with a defense of contributory negligence***
  injurer at fault ($x_i < x_i^*$) and victim faultless ($x_v \geq x_v^*$) $\Rightarrow$ injurer liable
  injurer faultless ($x_i \geq x_i^*$) *or* victim at fault ($x_v < x_v^*$) $\Rightarrow$ injurer not liable (in this case contributory negligence is a complete bar to recovery)

- ***comparative negligence***
  injurer at fault ($x_i < x_i^*$) and victim faultless ($x_v \geq x_v^*$) $\Rightarrow$ injurer bears 100%
  injurer faultless ($x_i \geq x_i^*$) and victim at fault ($x_v < x_v^*$) $\Rightarrow$ victim bears 100%
  injurer at fault ($x_i < x_i^*$) and victim at fault ($x_v < x_v^*$) $\Rightarrow$ injurer and victim bear costs in proportion to their respective liability

- ***strict liability with a defense of contributory negligence***
  victim at fault ($x_v < x_v^*$) $\Rightarrow$ injurer not liable (once again, contributory negligence is a complete bar to recovery)
  victim faultless ($x_v \geq x_v^*$) $\Rightarrow$ injurer liable

Under each negligence rule, both parties have incentives to undertake the efficient level of precaution. This is because, under each of the rules, one or the other party can escape bearing the *cost of harm* by satisfying the standard. Thus, it is then in the other party's interest to internalize the possible costs and thus he/she will behave efficiently as well. Note that this is not saying that there will be no accidents; only that the expected social costs of accidents will be minimized in each case.

F. Activity levels
   Clearly, a negligence rule is preferable whenever precaution is bilateral. But another question arises: which rule should we choose because each negligence rule induces both parties to undertake the efficient level of precaution? The answer depends on the incentives effects of each rule on *activity* levels and who ends up being the *residual bearer of accidental harm*. The residual bearer of harm is the party who bears the costs of the accident when both parties have met the legal standard of care.

   The residual bearer of harm has incentives to engage in the efficient level of precaution and activity. Thus, liability rules should be chosen such that whichever party's activities most affect accidents should bear the residual cost of harm. Note that in all cases except those involving strict liability, so long as the injurer meets the standard, they are not liable, regardless of their activity level, i.e., their activity level is not affected by the liability standard, only their level of precaution is. Thus, in those cases where the victim's activity has more of an effect on accidents, some rule other than one involving strict liability should be chosen. Strict liability (or some variant thereof) should be chosen otherwise.

G. The Hand Rule
   The Hand rule is simply a restatement of our earlier condition for ensuring that the cost of accidents is minimized, i.e., set the standard such that parties will take the level of precaution where MC = MB.

H. Systematic Errors
Mistakes are often made concerning the extent of harm, the cause of harm, and fault. The question arises how such mistakes affect incentives, i.e., how robust is each rule with respect to efficiency?

1. Errors by the court in estimating the level of harm (damages) or who caused the harm.
   - In either case, under a rule of *strict liability*, the injurer's precaution and error move in the same direction. For example, if harm is overestimated, precaution will be too high. In a similar manner, if the court sometimes finds the injurer was the cause of the accident when he was, in fact, not the cause, precaution will be too high.
   - Under a *negligence* rule, in general, precaution is unaffected by errors by the court in setting damages or errors by injurers when they predict damages. The same is true for errors by the court when determining cause. (Note that this affects the expected cost of the accident and thus shifts the cost curves up or down by some amount.)

2. Errors by the court in setting the legal standard.
   - Under a negligence rule, this will shift the relative positions of the forbidden and permitted zones. Injurers respond exactly to this change and precaution is too high or too low. (Why isn't this an issue under strict liability?)
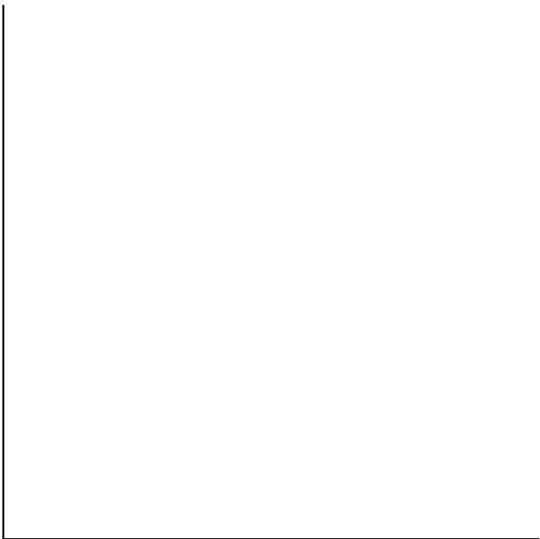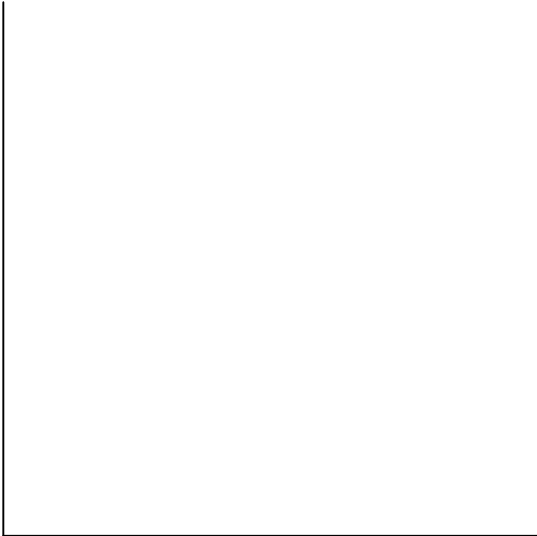
Liability Rule	Systematic error w.r.t. Level of Harm (affects A)	Systematic error w.r.t. Cause (affects p(x))	Systematic error w.r.t. Legal Standard
Negligence			
Strict Liability			

Implication is that, in the case of systematic errors, a negligence rule tends to be more robust than a rule involving strict liability.

I. Vague standards and uncertainty: Random Errors

We also need to distinguish between *bright-line rules* and *vague rules*. In the previous section, the discussion focused on systematic errors, i.e., errors that are made repeatedly over time. In this section, the concern is about *random errors*.

- If errors with respect to the amount of damages are purely random (i.e., they have mean value of 0), there is no effect on efficiency of behavior, regardless of the liability rule in question.

- Random errors with respect to the legal standard cause the injurer to take extra precaution due to the asymmetry between expected damage costs and the cost of precaution (the latter are lower in the vicinity of x*). Being found liable when they took the correct amount of precaution costs more than taking excess precaution when they would not be found liable if they took the correct amount of precaution.

Liability Rule	Random error w.r.t. Level of Harm	Random error w.r.t. Cause	Random error w.r.t. Legal Standard
Negligence			
Strict Liability			

Implication is that, in the case of random errors, a rule involving strict liability tends to be more robust than a negligence rule.

J. Administrative costs and tailored rules
Administrative costs are incurred in attempts to allocate the costs of harm when a tort has allegedly occurred.

1. Consider first the relative administrative costs of three liability rules.
    - *No Liability*: No liability leaves accident costs where they lie. In this case, there are no administrative costs. Recall, however, that under this rule injurers have no incentives to take precautions.

    - *Strict Liability*: Strict liability simply requires proof of harm and causation. Fault is not an issue. However, more cases are possible under a rule of strict liability than under a rule of negligence.

    - *Negligence*: Negligence requires proof of harm, cause, and fault. However, fewer cases are possible under a rule of negligence than under a rule of strict liability.

    - The upshot is that the tradeoff between negligence and strict liability leaves it unclear to as to which rule results in lower administrative costs.

2. In considering the choice among types of rules, consider the tradeoff between *wholesale rules* and *case-by-case adjudication*.
    - Wholesale rules are simple and broad. However, they distort the relationship between marginal costs and marginal benefits of precaution by treating entities and situations that are inherently different as being essentially the same. Thus, they reduce administrative costs but at the expense of creating incentives for people to take inefficient levels of precaution in many instances.

    - By its very nature, case-by-case adjudication has just the opposite effects.