BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

EE403

Law & Economics

Tort IV

General conclustion so far

1. If you don't bear any of the cost of accidents, you have no incentive to prevent them

	Injurer Precaution	***Victim Precaution***	***Injurer Activity***	***Victim Activity***
No Liability	**Zero**		**Too High**	
Strict Liability		**Zero**		**Too High**
Simple Negligence				
Negligence with a Defense of Contributory Negligence				
Comparative Negligence				
Strict Liability with Defense of Contributory Negligence				

General conclustion so far

2. If you **do** bear the cost of accidents, you'll do whatever you can to prevent them

	Injurer Precaution	***Victim Precaution***	***Injurer Activity***	***Victim Activity***
No Liability	Zero	**Efficient**	Too High	**Efficient**
Strict Liability	**Efficient**	Zero	**Efficient**	Too High
Simple Negligence				
Negligence with a Defense of Contributory Negligence				
Comparative Negligence				
Strict Liability with Defense of Contributory Negligence				

General conclustion so far

3. If you can avoid liability by exercising due care, you'll do it, but then you won't reduce activity

	Injurer Precaution	***Victim Precaution***	***Injurer Activity***	***Victim Activity***
No Liability	Zero	Efficient	Too High	Efficient
Strict Liability	Efficient	Zero	Efficient	Too High
Simple Negligence	**Efficient**		**Too High**	
Negligence with a Defense of Contributory Negligence	**Efficient**		**Too High**	
Comparative Negligence	**Efficient**		**Too High**	
Strict Liability with Defense of Contributory Negligence		**Efficient**		**Too High**

General conclustion so far

4. If the other guy can duck liability with due care, you're the residual risk bearer, and therefore…

	Injurer Precaution	***Victim Precaution***	***Injurer Activity***	***Victim Activity***
No Liability	Zero	Efficient	Too High	Efficient
Strict Liability	Efficient	Zero	Efficient	Too High
Simple Negligence	Efficient	**Efficient**	Too High	**Efficient**
Negligence with a Defense of Contributory Negligence	Efficient	**Efficient**	Too High	**Efficient**
Comparative Negligence	Efficient	**Efficient**	Too High	**Efficient**
Strict Liability with Defense of Contributory Negligence	**Efficient**	Efficient	**Efficient**	Too High

So far : accidents between strangers

- We have assumed there's no preexisting relationship between injurer and victim.

- Another interesting case: accidents that occur between a business and its customers, or between a business and people who aren't its customers
  - Article by Shavell, "Strict Liability Versus Negligence"

Accidents between “sellers and strangers”

- Injurer is in a competitive business, but **not with victim**
  - victim is not injurer’s customer, but a stranger

- Example: taxi drivers
  - provide service to their passengers
  - risk hitting other pedestrians
    - victims are *not* their own customers

- Shavell assumes **perfect competition**
  - Price = marginal cost of “production”
  - Sales = number of passengers who demand rides at that price

Accidents between “sellers and strangers” : Strict liability

- Under a strict liability rule ➔ taxi drivers pay for accidents, take efficient precaution to minimize private cost
  - If cab driver can spend $X to reduce expected accidents by more than $X, he’ll do it, because it saves him money!
  - Choose efficient X
- Perfect competition → cost of remaining accidents is built into price
  - Price includes marginal cost plus “residual risk” of accidents that cab-driver would be liable for
- Taxi passengers face price that includes cost of accidents
  - Passengers internalize risk of accidents, demand efficient number of rides

Accidents between “sellers and strangers” : Negligence

- Under a negligence rule, taxi drivers still take efficient precaution
  - Because that’s what’s required to avoid liability

- But then drivers don’t bear residual risk
  - Cost of accidents isn’t built into price – price includes only marginal cost, not risk of accidents
  - Passengers face prices that are too low (lower than social cost)
  - Demand for taxi rides inefficiently high

Adding those results

	Injurer Precaution	***Injurer Activity***
ACCIDENTS BETWEEN STRANGERS		
Simple Negligence	**Efficient**	**Too High**
Strict Liability	**Efficient**	**Efficient**
ACCIDENTS BETWEEN BUSINESSES AND STRANGERS		
Simple Negligence	**Efficient**	**Too High**
Strict Liability	**Efficient**	**Efficient**

Final case: accidents between businesses and their own customers

- Example: restaurants taking precaution to reduce risk of food poisoning

- How accurately do customers perceive risks?
  - Customers can accurately judge **risk of each restaurant**
  - Customers can accurately judge **average level of risk**, but not differences across restaurants
  - Customers **ignorant of risks**

Accidents between businesses and their own customers: Strict liability

- Seller bears cost of accidents → efficient precaution
- Seller bears residual risk → expected cost of accidents is built into prices
- Even if customers don't perceive risk, price leads them to make efficient choices
  - Price of shellfish = cost of shellfish + expected cost of food poisoning

Accidents between businesses and their own customers

	Risk Perception?	***Seller Precaution***	***Buyer Activity***
Strict Liability	Yes	**Efficient**	**Efficient**
	No	**Efficient**	**Efficient**

Accidents between businesses and their own customers: **negligence**

- Restaurants take efficient precaution, to avoid liability
- But since they avoid liability, cost of accidents not built into prices
- If customers perceive risk correctly, no problem
  - Weigh benefit of meal versus price + expected pain due to food poisoning
  - Demand efficient number of meals
- But if customers don't perceive risk, they'll demand inefficiently many dangerous meals

Accidents between businesses and their own customers

	Risk Perception?	***Seller Precaution***	***Buyer Activity***
Strict Liability	Yes	**Efficient**	**Efficient**
	No	**Efficient**	**Efficient**
Negligence	Yes	**Efficient**	**Efficient**
	No	**Efficient**	**Too High**

Accidents between businesses and their own customers: **no liability**

- If customers correctly judge risks…
  - Restaurants take efficient precaution to attract customers
  - And customers demand efficient number of meals
- If customers can only judge average level of risk…
  - Restaurants take no precautions
  - But customers know this, demand efficient (low) number of meals
- If customers are oblivious to risk…
  - Restaurants take no precautions
  - Cost of food poisoning not built into prices
  - Customers demand inefficiently high number of meals

Accidents between businesses and their own customers

	Risk Perception?	***Seller Precaution***	***Buyer Activity***
Strict Liability	Yes	**Efficient**	**Efficient**
	No	**Efficient**	**Efficient**
Negligence	Yes	**Efficient**	**Efficient**
	No	**Efficient**	**Too High**
No Liability	Yes	**Efficient**	**Efficient**
	Average	**None**	**Efficient**
	No	**None**	**Too High**

Big picture – strict liability versus negligence

Strict liability	*Negligence*
• Good incentives for injurers, not for victims	• Incentives for precaution by both parties
• Efficient activity when injurer is a business, and when victim doesn't correctly account for risk	◆ Depends on standard of care being set correctly

What about relative administrative costs of the two systems?

- Negligence rules lead to longer, more expensive trials
  - Simpler to just prove harm and causation
- But negligence rules lead to fewer trials
  - Not every victim has a case, since not every injurer was negligent
- Unclear which system will be cheaper overall

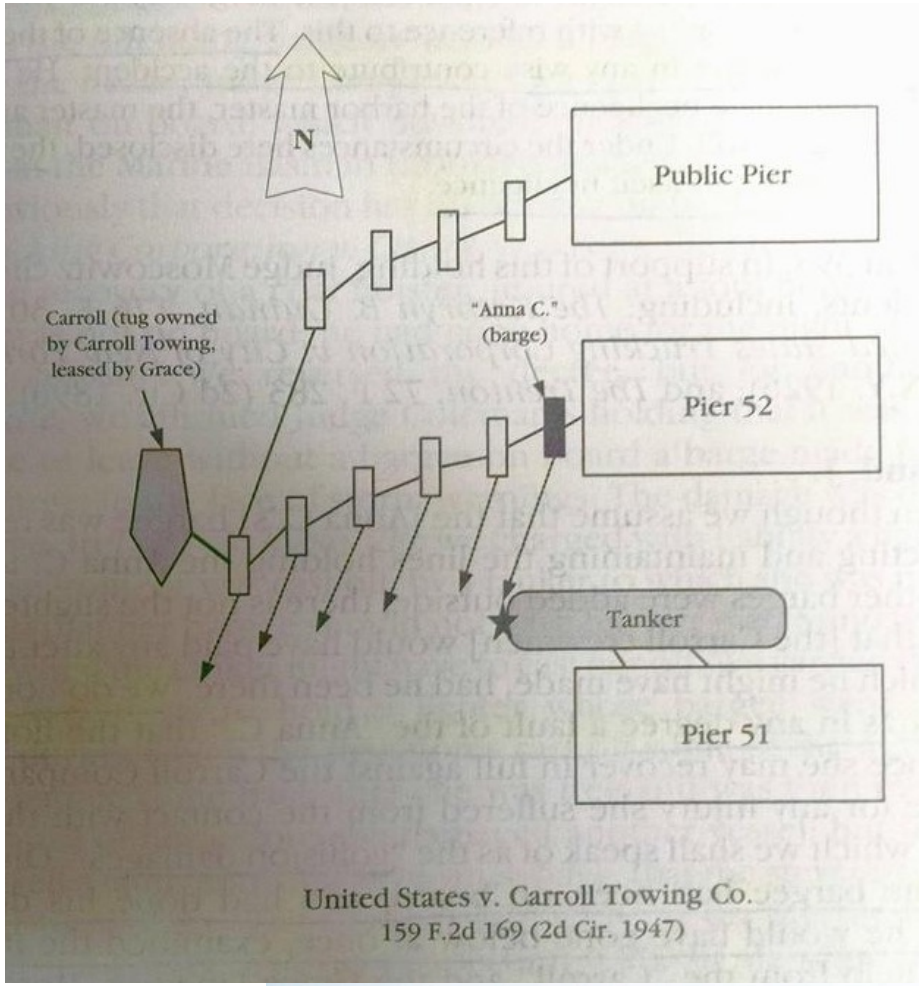
Setting the legal standard of care

- We've been assuming x = x*
  - court could set legal standard for avoiding negligence equal to efficient level of precaution

- In some cases, this is what court actually tries to do
  - "Hand Rule"
  - **U.S. v Carroll Towing** (1947, U.S. Court of Appeals)

Setting the legal standard of care

- **U.S. v Carroll Towing**
- (1947, U.S. Court of Appeals)
  - Several barges secured together to piers
  - Defendant's tugboat was hired to tow one out to harbor
  - Crew readjusted lines to free barge
  - Adjustment done incorrectly, one barge broke loose, collided with ship, sank
  - Barge owner sued tugboat owner, saying his employees were negligent
  - Tug owner claimed barge owner was also negligent for not having an agent on board the barge to help
- **Question**: **was it negligent to not have a "bargee" on board?**



"The Hand Rule"

- Judge Learned Hand, in Carroll Towing decision:

  "It appears… that there is no general rule…

  Since there are occasions when every vessel will break away from her moorings, and since, if she does, she becomes a menace to those around her; the owner's duty… to provide against resulting injuries is a function of three variables:

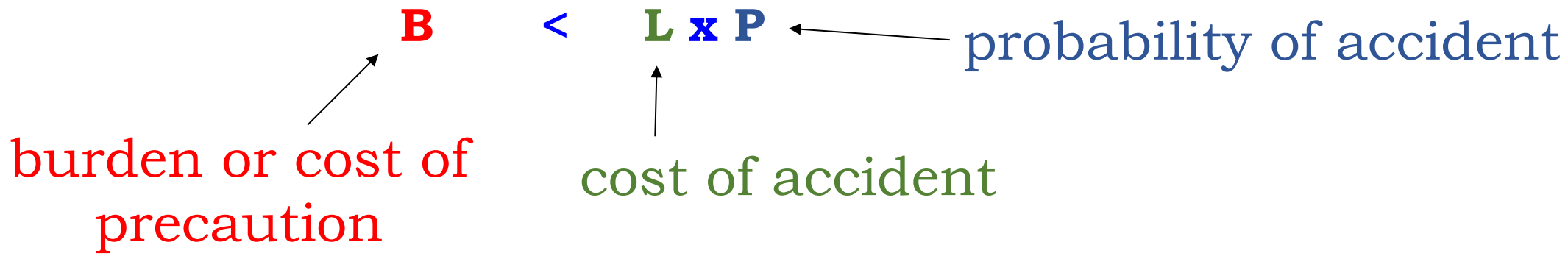
(1) the probability that she will break away;
(2) the gravity of the resulting injury, if she does;
(3) the burden of adequate precautions.

  if the probability be called P; the injury, L; and the burden, B;

  liability depends upon whether **B is less than L multiplied by P.**"

"The Hand Rule"

- Failure to take a precaution constitutes negligence if



- So a particular precaution is required to avoid liability if it is **cost-justified** – its cost is less than its benefit

- Or, a precaution is required to avoid liability if taking it would have been efficient
  - Hand Rule: "If a precaution is efficient, then you're negligent if you didn't take it."

Example

- A customer walking down the aisle of a supermarket knocks ajar of baby food to the floor, where it shatters.
- A few seconds later, another customer turns in to the aisle, fails to see the puddle on the floor, slips, and breaks a leg.
- It would not have been "reasonable" to expect that the owner of the market would station personnel in each aisle to offer continuous warnings about wet spots and to provide for instant cleanup.

Example

- In this case, the cost of preventing the injury would far exceed the expected loss *(P* x *L).* Common sense would almost certainly lead a jury to conclude that negligence had not occurred.
- But if the wet spot had been left for thirty to forty minutes, the verdict would be likely to go the other way, because the cost of policing the aisles at such an interval is relatively low, and the likelihood of injury occurring during the longer interval is considerably greater.

"The Hand Rule"

- Hand rule: precaution is required to avoid negligence if

  Cost of precaution < reduction in accidents X size of accident

- From Social cost of accident, we could think of hand rule as **marginal costs/benefits**…
  - Cost is …… (marginal cost of precaution)
  - Reduction in accidents is ……
  - Size of accidents is …….
  - Hand Rule says, if

    ……

  - you were negligent, because an extra unit of precaution would have been efficient

Hand Rule

Hand's name	Our name	Hand's notation	Our notation
Burden	Marginal cost of precaution		
Liability	Cost of accidental harm		
Probability	Marginal probability		

Substituting our notation into Hand's formula, we obtain the following rule:

marginal Hand rule: → injurer is negligent.