## Chapter 2

### Risk Identification

#### Enterprise Risk Management

- Ultimate Objective of ERM is to handle risks that are harmonious with the strategic plan.
- Making pre-loss arrangements for post-loss resources.
- Need for *loss identification and risk identification.*

#### Employment

- The staff varies based on size and responsibility.
- All firms and people engage in risk management.
- Career opportunities internally to firms and externally, like consultants and brokers.
- Occupation is professionally recognized – RIMS – Risk and Insurance Management Society.
Useful Methods

- Identify & Measure (evaluate).
- Choose most efficient tool(s) for Control.
- Implement and review.

Step 1 - Identify

- **What to identify:**
  - External/Internal
  - Pure/Speculative
  - Direct losses
  - Indirect losses
  - Key personnel
  - Operations

- **How to identify**:
  - Balance sheet
  - Income statement
  - Other records
  - Checklists
  - Flow charts
  - Questionnaires

Measure (evaluation)

- Maximum possible loss
  - The absolute maximum dollar amount of damage
- Maximum probable loss
  - A conservative estimate of what is likely to occur in a worst case loss
- Relative Frequency
  - An estimate (numerical or verbal) as to the number of times the loss will occur
Maximum Probable Loss

- Maximum Probable Loss at the 95% level is the number, MPL, that satisfies the equation:
  Probability (Loss < MPL) < 0.95
- Losses will be less than MPL 95 percent of the time

Value at Risk (VaR)

- VaR is essentially the same concept as maximum probable loss, except it is usually applied to the value of a portfolio.
- If the Value at Risk at the 5% level for the next week equals $20 million, then
  - Prob(change in portfolio value < -$20 million) = 0.05
  - In words, there is 5% chance that the portfolio will lose more than $20 million over the next week

Value at Risk

- Example:
  - Assume VaR at the 5% level = $5 million
  - And VaR at the 1% level = $7.5 million
Earnings at Risk

- Corporate finance application of VaR idea

If the Earnings at Risk at the 5% level for the next quarter equals $20 million, then
  - \( \text{Prob}(\text{Quarterly Earnings} < -$20 \text{ million}) = 0.05 \)
  - In words, there is 5% chance that earnings be less than $20 million over the next quarter

- To implement, need to understand firm’s value drivers

Property Risks

- Tangible Property:
  - Real Property.
  - Business Property.

- Intangible Property:
  - Patents.
  - Human Capital.
  - R&D.
  - Reputation.
  - Brand Awareness.

Property Risks

- Damage to the Property of Others:
  - Supply chains are interconnected.
  - through Joint-Ventures or in joint R&D.
  - Disruption or outright failure can occur at a firm.
  - Will affect other firm(s) in supply chain.
Valuing Property

- Replacement value versus book value versus actual cash value versus market value.
- International operations and exchange rate problems.
- The impact of inflation on values.

Liability Legal Grounds

- The (English Common Law) American legal system is based on the notion that a person should be responsible for the damage caused to others.
- Legal liability is the responsibility, based in law, to right some wrong done to another person or organization.
- A remedy is compensation for a person who has been harmed in some way.

Basis of Liability Risk
Basis of Liability

- **Criminal law**: Concerned with acts that are contrary to public policy (crimes), such as murder or burglary.
- **Civil law**: Deals with acts that are not against society as a whole, but rather cause injury or loss to an individual or organization.
  - **Contractual liability** occurs when the terms of a contract are not carried out as promised by either party to the contract.
  - A **tort** is a private or civil wrong or injury, other than breach of contract, for which the court will provide a remedy in the form of an action for damages.

Basis of Liability

- **Statutory law**: The body of written law created by legislatures.
- **Common law**: Body of law based on custom and court decisions.
- In evolving common law, the courts are guided by the doctrine of stare decisis.
  - **Stare decisis**: Principle that once a court decision is made in a case with a given set of facts, the courts tend to adhere to the principle thus established and apply it to future cases involving similar facts.

Liability Risks

- **Examples of loss sources**:
  - Breach of contract
  - Bodily injury or personal injury
  - Intentional damage to reputation
  - Wrongful hiring, firing, sexual harassment, invasion of privacy, age discrimination
  - Vicarious liability
  - Products, environmental, workers’ compensation
- Jury must weigh the facts based upon “the preponderance of evidence” not “beyond all or reasonable doubt”
Torts - An Insurance Categorization

- Deliberate or Intentional Interference
  - Assault, battery, liable, false arrest
  - Can result in civil as well as criminal actions

- Liability Without Fault (Strict and Absolute Liability)
  - Laws or court precedent mandate liability in some circumstances: explosives, dangerous animals
  - Worker's compensation, pure no-fault

Basis of Liability

- **Negligence** can be defined as a failure to act reasonably, and that failure to act causes harm to others.
- It is determined by proving the existence of four elements.
  - A duty to act (or not to act) in some way
  - Breach of that duty
  - Damage or injury to the one owed the duty
  - A causal connection, called a *proximate cause*, between the breach of a duty and the injury

Defenses Against Liability

- Assumption of risk
- Contributory negligence
- Comparative negligence
- Last clear chance
- Sovereign, familial and charitable immunity
Defenses Against Liability

- **Assumption of risk**: Doctrine that holds that if the plaintiff knew of the dangers involved in the act that resulted in harm, but chose to act in that fashion nonetheless, the defendant will not be held liable.

- **Contributory negligence**: Situation that disallows any recovery by the plaintiff if the plaintiff is shown to be negligent to any degree in not avoiding the relevant harm.

Defenses Against Liability

- **Comparative negligence**: Situation in which the court compares the relative negligence of the parties and apports recovery on that basis.
  - **Partial comparative negligence**: Rule under which only the individual less than 50 percent at fault in causing harm receives compensation.
  - **Complete comparative negligence**: Rule under which both parties share damage in relation to their levels of responsibility for fault.

Basis for Liability

- **Res ipsa loquitur (“The thing speaks for itself”)**: Doctrine that shifts the burden of proof to the defendant.
- **Strict liability**: Liability without regard to fault.
- **Vicarious liability**: Situation in which the liability of one person may be based on the tort of another.
- **Joint and several liability**: Situation that exists when a plaintiff is permitted to sue any of several defendants individually for the full harm incurred.
“Res Ipsi Loquitur”

- Tactic used in court to shift a legal burden to the defendant
- Requires:
  - The defendant has exclusive use of the instrument or process that caused the loss and the plaintiff did not
  - Use of the instrument or process does not normally cause injury unless there was negligence

Major Sources of Liability

- **Property**
  - **Trespasser**: A person who enters the premises of another without either express or implied permission from a person with the right to give such permission.
  - **Licensee**: A person who enters premises with permission but (1) not for the benefit of the person in possession, or (2) without a reasonable expectation that the premises have been made safe.
  - **Invitee**: A person who enters the premises with permission and for the benefit of the person in possession.

- **Attractive nuisance**
  - Anything that is (1) artificial, (2) attractive to small children, and (3) potentially harmful.

- **Hazardous waste**
  - An increasingly important area of potential liability involving property derives from the possibility that land may be polluted, requiring cleanup and/or compensation to parties injured by the pollution.
Major Sources of Liability

- Professional Liability
  - Liability for damage caused by failure to keep up with developments in the field and maintain the standards established for the profession.

- Errors and Omissions
  - Errors and omissions (E&O) liability coverage: Insurance protection for mistakes made by professionals that result in professional liability claims.

- Directors and Officers
  - The outcome of accounting irregularities and the pure fraud that was alleged has caused the rates of directors and officers (D&O) liability coverage to soar.

Defenses in a Negligence Suit

- Show there was no injury, duty, or failure
- Contributory negligence - common law
- Comparative negligence - statutory modification
- Last clear chance rule - statutory modification
- Assumption of the risk - common law

Types of Damages

- Compensation for Personal Injuries
  - Includes medical, lost wages, future wage loss, and pain and suffering
- Punitive Damages
  - Compensation to punish a defendant for outrageous acts
- Punitive damages against insurers
  - When insurers act in bad faith in resisting an insured’s legitimate claim
- Other Damages
  - Hedonic damages - loss of life’s pleasures
  - Mental anguish
Human Resource Risks

- Loss of Key Person
- Disability – physical (medical) or mental
  - Short or long term
  - Permanent or temporary
- Loss of health
- Unplanned retirement
- Results in loss of income, business continuation problems, replacement and training issues

Remember: Review and Update

- Regularly review and update the process
  - New assets or disposal of assets
  - Valuation changes
  - New products, processes, and operations
  - New personnel
  - Law changes
  - Currency fluctuations
  - New contractual relationships