

Charles M. Nyce, "Understanding and Quantifying Risk" and "Loss Exposures," in Chapter 1: "Risk," in *Foundations of Risk Management and Insurance*, Second Edition, pp. 1.3–1.17.

OUTLINE

I. UNDERSTANDING AND QUANTIFYING RISK

A. Introduction

1. Risk related to opportunity and reward; individuals and organizations seek to maximize reward and minimize risk
2. Can use a wide variety of risk management techniques including risk transfer via insurance
3. **Risk** – "uncertainty about outcomes, some of which can be negative"
4. **Negative outcome** – "loss or reduction in value"
5. Possible meanings for risk
 - a. Subject matter of an insurance policy
 - b. Insurance applicant
 - c. Possibility of BI or PD
 - d. Cause of loss
 - e. Variability associated with a future outcome

B. Elements of Risk

1. Uncertain outcome
 - a. Uncertainty regarding type of outcome
 - b. Uncertainty regarding the timing of the outcome
2. Possibility of a negative outcome
 - a. Possibility indicates something could happen but does not quantify risk
 - b. **Probability** – "likelihood that an outcome or event will occur"
 - 1) Expressed as a number between zero and one
 - 2) Unlike possibility, is measurable
 - 3) Used to evaluate activities to undertake and risk management techniques to use

II. LOSS EXPOSURES

A. Elements of Loss Exposures

1. **Loss exposure** – "condition that presents a possibility of loss, whether or not an actual loss occurs"
2. Three elements of a loss exposure
 - a. Asset exposed to a loss, e.g., a building
 - b. Cause of loss, e.g., fire
 - c. Financial consequences of a loss, e.g., decline in market value
 - 1) Related to type of exposure, cause of loss, and loss frequency and severity
 - 2) Ability to determine exact amount can vary by type of loss

B. Hazards

1. **Hazard** – "condition that increases the frequency and/or severity of loss"
2. Types of hazards
 - a. **Moral hazard** – "condition that increases the frequency and/or severity of loss resulting from a person acting dishonestly"
 - 1) Example: intentional causing a loss
 - 2) Financial difficulty provides an incentive to commit fraud
 - 3) Insurance policy also promotes moral hazard
 - b. **Morale hazard** – "condition that increases the frequency and/or severity of loss resulting from careless or indifferent behavior"
 - 1) Example: driving carelessly
 - 2) Attributable to carelessness, not to a deliberate act, as with a moral hazard
 - c. **Physical hazard** – "condition of property, persons, or operations that increases the frequency and/or severity of loss"
 - 1) Example: inadequate ventilation while painting
 - 2) Types of physical hazards
 - a) **Common hazards** – "hazards that could potentially be present at most properties"
 - b) **Special hazards** – hazards "considered unique to an individual property"
 - d. **Legal hazard** – "condition of the legal environment that increases the frequency and/or severity of loss," e.g., tendencies of larger court judgments in certain states
 - e. Hazards can have a compounding effect

PAST CAS EXAMINATION QUESTIONS

1. Define "moral hazard" and "morale hazard." Provide an example of each. (81-5-85-2)
2. Morale hazards refer to defects in human character that lead insureds to exaggerate or intentionally cause losses as a means of collecting insurance proceeds. (83-5-11-.5)
3. An example of moral hazard occurs when property is insured for an amount in excess of its value to the owner. (89-5- 12-.5)
4. Which of the following are true?
 1. Efforts to exaggerate a loss constitute a morale hazard.
 2. Arson constitutes a moral hazard.
 3. Lack of care, because of the presence of insurance, constitutes a morale hazard.

A. 1 B. 2 C. 1,2 D. 1,3 E. 2,3 (91S-3B-4-2)
5. Morale hazard refers to the tendency to be less careful about preventing losses when insured. (92F-3B-1-1)
6. In *Foundations of Risk Management and Insurance*, Nyce discusses risk and related concepts.
 - a. Identify the two generally accepted elements of risk.
 - b. Define the concept of "loss exposure." (07-5-14a&b-.5ea.)

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1. Moral hazard is a "condition that increases the likelihood that a person will intentionally cause or exaggerate a loss." Morale hazard is a "condition of carelessness or indifference that increases the frequency or severity of loss," p. 1.8.
2. F, p. 1.8 – Substitute "moral" for "morale."
3. T, p. 1.8.
4.
 1. F, p. 1.8 – Substitute "moral" for "morale."
 2. T, p. 1.8
 3. T, p. 1.8

Answer: E
5. T, p. 1.8.
6.
 - a.
 - 1) Uncertain outcome
 - 2) Possibility of loss, p. 1.8.
 - b. A loss exposure is "[a]ny condition or situation that presents a possibility of loss, whether or not an actual loss occurs," p. 1.6.