ARM – 56
Risk Financing

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ARM 56

Course Review

ARM 56
Test Prep Strategy

- Exam is 75 questions with 2 hours to complete
  - Passing score is 70% or higher
  - You can miss 22 questions and still pass the exam
  - About 75 seconds for each question
  - 53 questions simple/core questions; 22 applied questions
- Read each question very carefully
  - Don’t rush your understanding
- Answer the questions you know
  - mark the questions that you are not 100% are correct
  - Mark the questions you skip
  - Eliminate wrong answers to 50/50 chance
  - Answer every question
  - Your first choice is usually the correct answer
    - Don’t over analyze

ARM 56
Test Prep Strategy

- Study each chapter by doing the following:
  - Read the Direct Your Learning
    - Note the key learning objectives
    - Make flashcards of those topics that ask you to list
  - Read the Chapter Summary
    - If it was repeated here, it is most likely important enough for the test
    - Review those elements that you are not familiar – understand the why
  - Make flashcards of key words and phrases
  - Think “Big Picture”

ARM 55
Test Prep Strategy

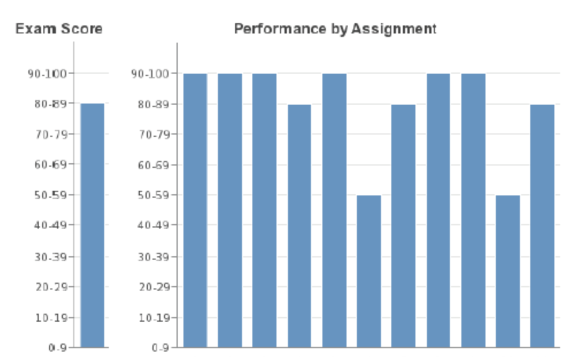
- Applied questions address several chapters based upon a scenario
- You can fail an entire chapter of questions and still pass the exam

Exam Reporting

ARM 054 - Risk Management Principles and Practices

GRADE: G (Good)

Interpreting Your Exam Results. Examination scores can range from 1 to 100, with 70 being the passing score. Your score on this exam is indicated by Exam Score graph below. Exam questions are developed on the basis of the educational objectives presented in the study materials for this course. To determine your performance on the questions based on each course assignment, see the Performance by Assignment graph below.

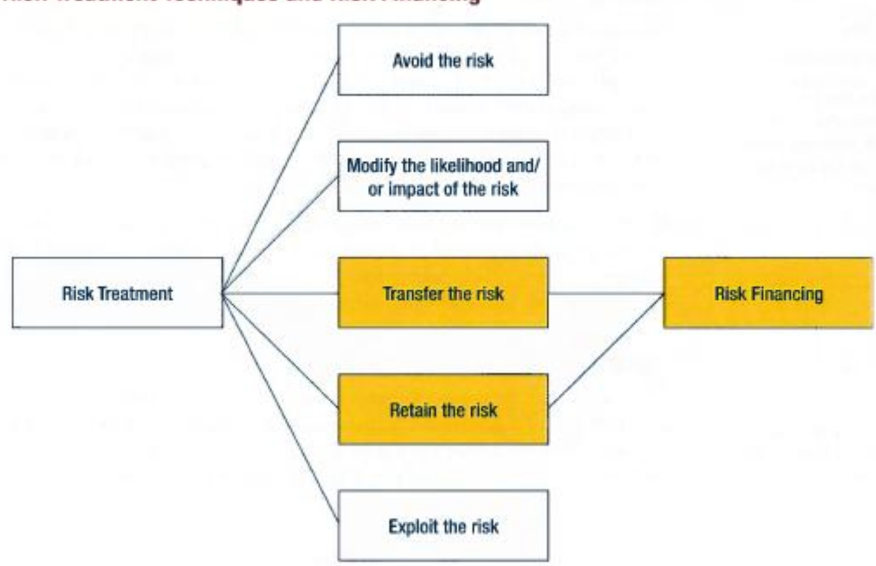


Looking Ahead. Congratulations on passing this exam!

Chapter 1
Introduction to Risk Financing

- Risk Transfer
  - Insurance
  - Contract
  - Hedging
- Risk Retention
  - Planned vs. Unplanned
  - Partial vs. Full Retention
  - Funded vs. Unfunded
- Risk Financing Goals
  - Pay for negative consequence of event
  - Maintain liquidity
  - Manage uncertainty
  - Comply with legal/regulatory requirements
  - Minimize the cost of risk

Risk Treatment Techniques and Risk Financing



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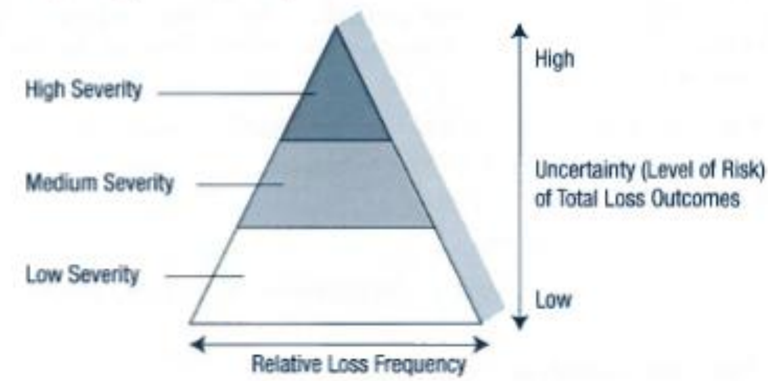
Selecting a Risk Financing Plan

Frequency and Severity Characteristics of Losses



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Selecting a Risk Financing Plan

The Prouty Approach

		Loss Frequency			
		Almost Nil	Slight	Moderate	Definite
Loss Severity	Severe	Transfer	Reduce or prevent	Reduce or prevent	Avoid
	Significant	Retain	Transfer	Reduce or prevent	Avoid
	Slight	Retain	Retain	Prevent	Prevent

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Enterprise Risk Management (ERM)

ERM differs from traditional risk management in key ways:

- ERM encompasses both hazard risk and business risk; traditional risk management focuses on hazard risk.
- ERM seeks to enable an organization to fulfill its greatest productive potential; traditional risk management seeks to restore an organization to its former pre-loss condition.
- ERM focuses on the value of the organization; traditional risk management focuses on the value of the accidental loss.
- ERM focuses on the organization as a whole; therefore, traditional risk management is both its own discipline and part of the broader enterprise risk management discipline.

Chapter 2
Estimating Hazard Risk

- Understand Loss Development Factors and Loss Development Triangles
- Increased Limit Factor 3 step Process
  - Developing increased limit factors
  - Calculating the increased limit factor for a specific layer of losses
  - Forecasting losses at various loss limits
- Forecasting Probable Variation from Expected Loss Uses 3 types of probability distributions
  - Frequency probability distribution
  - Severity probability distribution
  - Total Loss probability distribution

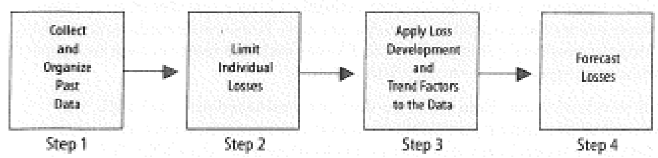
Chapter 2

Estimating Hazard Risk

Estimating hazard losses (dollar amounts) entails calculating an estimate of the expected (or average) losses for the coming year based on past data, which requires an organization's risk management professional to complete these four steps:

1. Collect and organize past data
2. Limit individual losses
3. Apply trend and loss development factors to the data
4. Forecast losses

The Four Steps in Loss Forecasting



Chapter 3

Transfer Hazard Risk Through Insurance

- Understand risk pooling and how it is the basis for insurance programs
- Understand different types of deductable programs
  - Per claim
  - Per accident/occurrence
- Understand different types

Benefits of Insurance

Benefit	Explanation
Pay for losses	The primary role of insurance is to indemnify (restore to pre-loss status) individuals and organizations for covered losses.
Manage cash flow uncertainty	Insurance provides financial compensation when covered losses occur. Therefore, insurance greatly reduces the uncertainty created by many loss exposures.
Comply with legal requirements	Insurance can be used both to meet the statutory and contractual requirements of insurance coverage and to provide evidence of financial resources.
Promote risk control activity	Insurance policies may provide insureds with incentives to undertake risk control activities as a result of policy requirements or premium savings incentives.
Efficient use of insured's resources	Insurance makes it unnecessary to set aside a large amount of money to pay for the financial consequences of loss exposures that can be insured. This allows that money to be used more efficiently.
Support for insured's credit	Insurance facilitates loans to individuals and organizations by guaranteeing that the lender will be paid if the collateral for the loan (such as a house or a commercial building) is destroyed or damaged by an insured event, thereby reducing the lender's uncertainty.
Source of investment funds	The timing of insurer's cash flows, premiums collected up front, and claims paid at a later date enable insurers to invest funds in a variety of investment vehicles.
Reduce social burden	Insurance helps to reduce the burden to society of uncompensated accident victims.

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Ideally Insurable Loss Exposure

Insurers generally prefer to provide insurance for the potential financial consequences of loss exposures that have these characteristics:

- Loss exposure involves pure, not speculative, risk.
- Loss exposure is subject to accidental loss from the insured's standpoint.
- Loss exposure is subject to losses that are definite in time and that are measurable.
- Loss exposure is one of a large number of similar, but independent, exposures.
- Loss exposure is not subject to a loss that would simultaneously affect many other similar loss exposures; loss would not be catastrophic.
- Loss exposure is economically feasible to insure.

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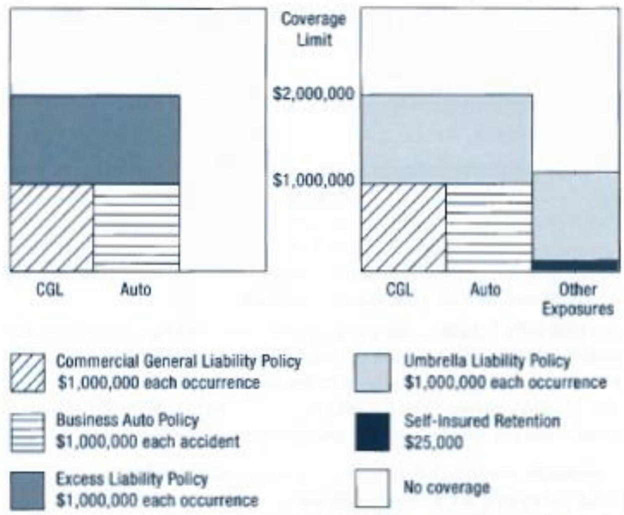
Excess Liability Policy Versus Umbrella Liability Policy



In this example (which ignores aggregate limits), both the excess liability policy and the umbrella liability policy provide $1,000,000 of additional liability coverage for the same exposures covered by the underlying policies. In addition, the umbrella policy covers some exposures not covered by the underlying insurance, subject to a $25,000 retention.

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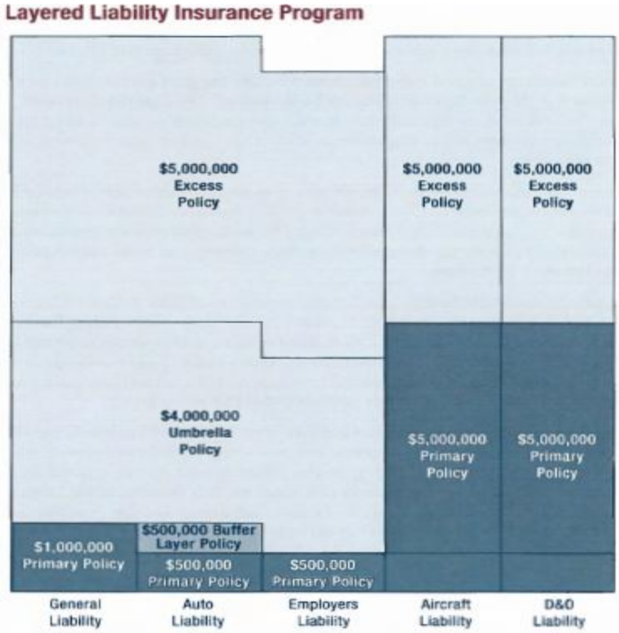
Layered Liability Insurance Program



For the sake of simplifying the presentation, this exhibit does not depict aggregate limits or umbrella drop-down coverage for claims not covered by the primary policies.

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Chapter 4
Self-Insurance Plans

- Self Insurance
  - Formal vs. informal retention
- Understand exposures that self-insurance is most appropriate
- Understand advantages vs. disadvantages

Chapter 5
Retrospective Rating Plans

- Understand operation and when it would be most appropriate to use
- Two types of plans
  - Incurred loss retro
  - Paid loss retro

Selecting a retrospective rating plan for an organization entails these steps:

1. Determine which coverages to include in the retrospective rating plan
2. Determine the limit to which the retrospective rating plan will apply
3. Determine the loss limitation, if any
4. Determine the maximum and minimum premiums

Retrospective Rating Plan

Retrospective Rating Insurance Premium Formula

Retrospective rating insurance premium formula (Basic premium + Converted losses + Excess loss premium) × Tax multiplier.

The formula for calculating premium, or the **retrospective rating insurance premium formula,** is as follows:

$$\text{Retrospective rating plan premium}^* = \left(\text{Basic premium} + \text{Converted losses} + \text{Excess loss premium}\right) \times \text{Tax multiplier.}$$

*Subject to maximum and minimum amounts

- Standard Premium
  - Calculated by using state insurance dept. rating classifications, applying them to insured organization's estimated exposures for policy period
  - Amount insured would pay for guaranteed cost plan

$$\text{Manual premium} = \frac{\text{Exposure units}}{\text{Exposure base}} \times \text{Manual rate.}$$

$$\text{Standard premium} = \text{Manual premium} \times \text{Experience modification factor.}$$

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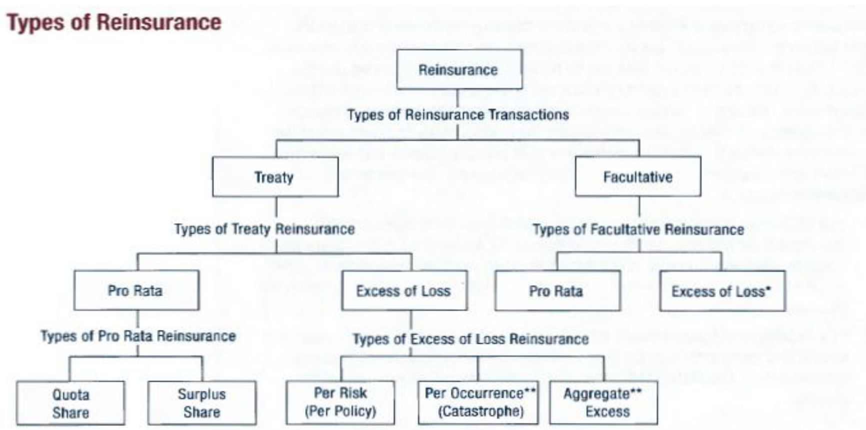
Chapter 6
Reinsurance

- Reinsurance Functions
  1. Increase large line capacity
  2. Provide catastrophe protection
  3. Stabilize loss experience
  4. Provide surplus relief
  5. Facilitate withdrawal from a market segment
  6. Provide underwriting guidance

- Reinsurance can be purchased from three sources:
  - Professional reinsurers
  - Reinsurance departments of primary insurers
  - Reinsurance pools, syndicates, associations

- Excess of Loss Reinsurance – (more common)
  - Primary insurer is indemnified for losses that exceed a specified dollar amount
  - Types
    - Per risk excess of loss
    - Catastrophe excess of loss
    - Per policy excess of loss
    - Per occurrence excess of loss
    - Aggregate

Reinsurance Types



* Excess of loss reinsurance written on a facultative basis is always on a per-risk or per-policy basis.

** Per occurrence and aggregate excess of loss reinsurance relate to a type of insurance, a territory, or the primary insurer's entire portfolio of in-force loss exposures rather than to a specific policy or a specific loss exposure.

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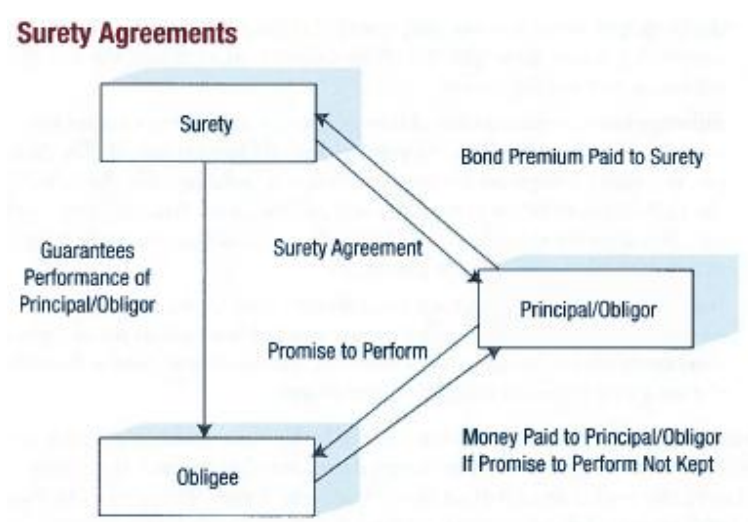
Chapter 7
Captive Insurance

- Types of Captive Insurance Programs
  - Single Parent
  - Group Captive
  - Risk Retention Group
  - Agency Captive
  - Rent-a-Captive
  - Protected Cell Captive
- Advantages and Disadvantages
- Fronting Company vs. Direct Writing Captive
- Considerations in setting up a captive
  - Selecting Lines of Business
    - WC, GL, PL, EPL
  - Setting Premiums
    - Guaranteed cost, retrospective, etc..
  - Determining Domicile
    - Foreign or domestic domicile; regulations and tax considerations
  - Dedicated Management Resources of Parent
  - Administering the Plan
  - Insuring Third Party Business
  - Financial Accounting Issues

Chapter 8
Contractual Risk Transfer

- Types of Contractual Transfers
  - Incorporation
  - Leasing
    - Sale and lease back arrangement
  - Contracting for services
    - Professional Service Agreements
  - Suretyship and guaranty agreements
    - Construction or performance contracts
  - Waivers and Hold Harmless Agreements
    - Facility use agreement or activity use (bouncehouse, flag football)
  - Limitations of liability
    - Computer software examples
  - Disclaimer of warranties
    - Used cars
- Additional Insured and Named Insured endorsements
- Common Law Liabilities
- Understand statutory limitations of Hold Harmless Agreements
  - Wording of limitations of liability is important (ie gross negligence)

Risk Control Transfer



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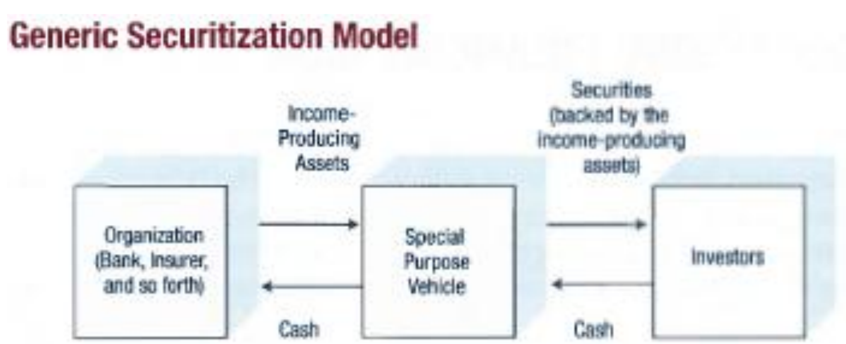
Chapter 9
Transferring Financial Risk

- Three key categories of financial risk are
  - Market risk
  - Credit Risk
  - Price Risk
- Derivatives
  - Forward and Futures contracts; how are they used
- Securitization – general understanding

Securitization



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Chapter 10
Transferring Hazard Risk to Capital Markets

- Types of Products – know how they work and advantages/disadvantages
  - Insurance linked securities
    - Catastrophe bonds
  - Insurance derivatives
    - Swaps and Insurance options
  - Contingent capital arrangements
  - **Standby Credit Facility**
    - Arrangement in which bank or other financial institution agrees to provide a loan in the event of a loss
  - **Contingent Surplus Note**
    - Notes that can be sold, if needed, to obtain cash at pre-agreed rate of interest
  - **Catastrophe equity put option**
    - Ability to sell stock at pre-determined price
- Basic understanding of regulatory and accounting issues

Chapter 11
Allocating Costs of Managing Hazard Risk

- Cost allocation system should focus on the following risk management costs
  - Retained losses
  - Insurance premiums
  - Risk control costs
  - Administrative expenses
- Effective program should serve the following purposes
  - Promote risk control
  - Facilitate risk retention
  - Prioritize risk management expenditures
  - Reduce costs
  - Distribute cost fairly
  - Balance risk-bearing and risk-sharing
  - Provide managers with risk management cost information
- Risk Bearing vs. Risk Sharing
- Types of Costs that can be allocated
  - Costs of accidental losses not reimbursed by insurance or other outside sources
  - Insurance premiums
  - Cost of risk control techniques
  - Costs of administering risk management activities

Chapter 11

Allocating Costs of Managing Hazard Risk

- Understand exposure vs experience based models
  - Experience based is more volatile, but has more direct impact
  - Usually a blended system

- Considerations when implementing
  - Accounting system
  - Tax system for organization's operations
  - Minimum charge amount for risk management services
  - Determination if cost allocation is insignificant
  - Penalties or rewards for department managers
  - Inclusion of managers in development of system
  - Risk Management Information System
  - Changes in organization's structure

Questions