Session 3-1: The Insurance Mechanism

1. A group of investors are discussing the formation of a new property and liability insurer. The proposed company would market a new homeowner policy that combines traditional homeowner coverages with unemployment benefits if the policyholder becomes involuntarily unemployed. Each investor would contribute at least $100,000 and would receive a proportionate interest in the company. In addition, the company would raise additional capital by selling ownership rights to other investors. Management wants to avoid the expense of hiring and training agents to sell the new policy and wants to sell the insurance directly to the public by selective advertising in personal finance magazines.
   a) Identify the type of insurance company that best fits the above description.

   Answer: The insurer that best fits the described characteristics is a stock insurer.

   (b)

   a) Identify the marketing system that management is considering adopting.

   Answer: The marketing system described is the direct response system.

2. Compare a stock insurer to a mutual insurer with respect to each of the following:
   a) Parties who legally own the company

   Answer: A stock insurer is owned by stockholders who share in the profits and losses of the company and legally own the company. A mutual insurer is owned by the policyholders.

   b) Right to assess policyholders additional premiums

   Answer: Stock insurers cannot issue assessable policies. A few small assessment mutuals have the right to issue assessable policies. However, advance premium mutuals do not issue assessable policies. Once the insurer's surplus exceeds a certain amount, the states will not permit a mutual insurer to issue an assessable policy. The advance premium mutual generally is larger and financially stronger than the assessment mutuals mentioned earlier.

   c) Right of policyholders to elect the board of directors

   Answer: In a stock company, the stockholders, not the policyholders, have the right to elect the board of directors. In a mutual company, the policyholders also have the right to elect the board of directors.

3. A luncheon speaker stated that "the number of life insurers has declined sharply during the past decade because of the increase in company mergers and acquisitions, demutualization of insurers, and formation of mutual holding companies."
   a) Why have mergers and acquisitions among insurers increased over time?

   Answer: Mergers and acquisitions have increased because insurers wish to reduce their operating costs and overhead expenses; also, mergers and acquisitions occur because some insurers want to acquire a new line of insurance or enter a new area of business.

b) What is the meaning of *demutualization?*

Answer: Demutualization means that a mutual insurer is converted into a stock insurer.

c) Briefly explain the advantages of demutualization of a mutual life insurer.

Answer: Demutualization increases the ability of an insurer to raise new capital, provides greater flexibility to expand, makes it possible to grant stock options to key employees, and may provide tax advantages.

d) What is a mutual holding company?

Answer: Because demutualization is slow, some mutual insurers have been reorganized as a holding company. A holding company is a company that directly or indirectly controls an authorized insurer. A mutual insurer is reorganized as a holding company that owns or acquires control of a stock insurance company that could issue common stock. The mutual holding company would own at least 51 percent of the subsidiary stock insurer if the latter issues common stock.

e) What are the advantages of a mutual holding company to an insurer?

Answer: Holding companies make it easier for insurers to raise new capital, to enter new areas of insurance more easily, and to grant stock options to key employees.

4. Property and casualty insurance can be marketed under different marketing systems. Compare the independent agency system with the exclusive agency system with respect to each of the following:

a) Number of insurers represented by the agent

Answer: The independent agent represents several insurers. The exclusive agent represents only one insurer or a group of insurers under common ownership.

b) Ownership of policy expirations

Answer: Under the independent agency system, the agency owns the expirations or renewal rights to the business. Under the exclusive agency system, agents usually do not own the expirations renewal rights to the policies. However, some insurers may grant limited ownership of the expirations while the agency contract is in force; this interest terminates when the agency contract is terminated. In addition, the contract usually permits the insurer to buy the expiration list from the exclusive agent to establish its value if the agency contract is terminated. In contrast, under the independent agency system, the agency has complete ownership of the expirations.

c) Differences in the payment of commissions

Answer: Independent agents are compensated by commissions that vary by line of insurance. The commission rate on renewal business is typically the same as that paid on new business. If a lower renewal rate is paid, the insurer may lose business, because the agent would place the insurance with another insurer at the time of renewal. Exclusive agency insurers generally pay a lower commission rate on renewal business than on new business. This approach gives the agent a financial incentive to write new business that pays a higher commission rate. In contrast, as noted earlier, insurers using the independent agency system typically pay the same commission rate on new and renewal business.

5. Property Insurance Company is a new property insurer. The company is growing rapidly because of a new homeowners policy that combines traditional homeowner coverages with insurance that pays off the mortgage if the insured dies or becomes totally disabled. Premiums written have increased substantially; new agents have been hired; and the company is considering expanding into additional states. However, its growth has been hampered by statutory accounting rules that require an insurer to write off immediately its first-year acquisition expenses but do not allow full recognition of premium income until the policy period has expired. In this case, explain how reinsurance will enable Property Insurance to continue to grow in an orderly fashion.
Answer: Statutory accounting rules require the entire gross premium to be placed in the unearned premium reserve. An insurer's ability to grow may be restricted by the unearned premium reserve, because the entire gross premium must be placed in the unearned premium reserve when the policy is first written. However, the insurer incurs relatively heavy first-year acquisitions expenses because of commissions, state premium taxes, underwriting expenses, and other expenses in issuing the policy. In determining the size of the unearned premium reserve, there is no allowance for these first-year acquisition expenses, and the insurer must pay them out of its surplus. As a result, a rapidly growing company may experience a surplus drain, and its ability to write new business may eventually be impaired. Reinsurance reduces the level of the unearned premium reserve required by law and temporarily increases the insurer's surplus position. As a result, the ratio of policyholders' surplus to net written premiums is improved, which permits the insurer to continue to grow.

6. Felix is a property claims adjustor for a large property insurer. Janet is a policyholder who recently notified the company that the roof of her home incurred substantial damage because of a recent hail storm. Janet owns her home and is insured under a standard homeowners policy with no special endorsements. What questions should Felix ask before the claim is approved for payment by his company?
Answer: Felix should ask the following questions before the claim is approved:
    - Did the loss occur while the policy was in force?
    - Does the policy cover the peril that caused the loss?
    - Does the policy cover the property destroyed or damaged in the loss?
    - Is the claimant entitled to recover?
    - Did the loss occur at an insured location?
    - Is the type of loss covered?
    - Is the claim fraudulent?

7. Based on the following information, determine the policyholders' surplus for XYZ Insurance Company:

Total invested assets	$50,000,000
Loss reserves	40,000,000
Total liabilities	70,000,000
Bonds	35,000,000
Unearned premium reserve	25,000,000
Total assets	90,000,000

Answer: The policyholders' surplus is equal to total assets minus total liabilities. Total assets are $90 million and total liabilities are $70 million. Therefore, the policyholders' surplus is $20 million.

8. Based on the following information, determine Mutual Life Insurance Company's gain from operations before income taxes and dividends to policyholders:

Total premium income	$20,000,000
Licenses, taxes, and fees	580,000
Death benefits paid	6,000,000
Net investment income	3,000,000
Commissions paid	5,900,000
General insurance expense	2,500,000
Surrender benefits paid	800,000
Annuity benefits paid	1,600,000

Answer: The gain from operations before dividends and taxes equals total revenues minus total expenses. Mutual Life Insurance Company's total revenues are $23.0 million (total premium income plus net investment income). The company's total expenses are the sum of each of the other listed items: death benefits paid, commissions paid, surrender benefits paid, licenses/taxes/fees, general expenses, and annuity benefits paid. These cash outflows total $17.38 million. Therefore, the company's gain from operations before dividends and taxes was $5.62 million.

9. A large casualty insurer writes a substantial amount of private passenger auto insurance. An actuary analyzed claims data for a specific class of drivers for a recent one-year policy period. The claims data showed that the insurer paid out $30 million for incurred losses and loss-adjustment expenses for each 100,000 cars insured for one year. Based on the pure premium method, calculate the pure premium.
Answer: The pure premium is $300. The pure premium is that portion of the gross rate needed to pay losses and loss-adjustment expenses. The pure premium is determined by dividing the dollar amount of incurred losses and loss-adjustment expenses by the number of exposure units. Incurred losses and loss-adjustment expenses are $30,000,000. The number of exposure units is 100,000 cars insured for one year. The premium is $30,000,000 divided by 100,000, or $300.

10. For the past calendar year, a property insurer reported the following financial information for a specific line of insurance:

Premiums written	$25,000,000
Expenses incurred	5,000,000
Incurred losses and loss-adjustment expenses	14,000,000
Earned premiums	20,000,000

a) What was the insurer's loss ratio for this line of coverage?
Answer: The loss ratio is 70 percent. The loss ratio is the ratio of incurred losses and loss-adjustment expenses to earned premiums. Incurred losses and loss-adjustment expenses are $14 million, and earned premiums are $20 million. The ratio, $14 million divided by $20 million, is 0.70 or 70 percent.

b) Calculate the expense ratio for this line of coverage.
Answer: The expense ratio is 20 percent. The expense ratio is the ratio of expenses incurred to written premiums. Expenses incurred were $5 million, and premiums written at $25 million. The expense ratio is $5 million divided by $25 million, or 20 percent.

c) What was the combined ratio for this line of coverage?
Answer: The combined ratio is 90 percent. The combined ratio is the sum of the loss ratio and the expense ratio (0.70 + 0.20 = 0.90).

11. Why are property and casualty insurance companies required to maintain loss reserves?
Answer: The IBNR reserve is the loss reserve for claims that have already occurred but have not been reported. As of a specified date, such as December 31, a certain number of claims have already occurred but have not yet been reported to the insurer.