

# **Analysis of Insurance Contracts**

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# Agenda

- Basic parts of an insurance contract
- Definition of the “Insured”
- Endorsements and Riders
- Deductibles
- Coinsurance
- Other-insurance provisions

# Basic Parts of an Insurance Contract

- Declarations are statements that provide information about the particular property or activity to be insured
  - Usually the first page of the policy
  - In property insurance, it contains name of the insured, location of property, period of protection, amount of insurance, premium and deductible information
- Insurance contracts typically contain a page or section of definitions
  - For example, the insured is referred to as “you”

# Basic Parts of an Insurance Contract

- The insuring agreement summarizes the major promises of the insurer
  - The two basic forms of an insuring agreement in property insurance are:
    - Named perils policy, where only those perils specifically named in the policy are covered
    - “All-risks” policy, where all losses are covered except those losses specifically excluded
      - May also be called an open-perils policy or special coverage policy
      - Insurers have generally deleted the word “all” from policies
    - “All-risks” coverage has fewer gaps, and the burden of proof is placed on the insurer to deny a claim

# Basic Parts of an Insurance Contract

- Insurance contracts contain three major types of exclusions
  - Excluded perils, e.g., flood, intentional act
  - Excluded losses, e.g., a professional liability loss is excluded in the homeowners policy
  - Excluded property, e.g., pets are not covered as personal property in the homeowners policy

# Why are Exclusions Necessary?

- Some perils are not commercially insurable
  - e.g., catastrophic losses due to war
- Extraordinary hazards are present
  - e.g., using the automobile for a taxi
- Coverage is provided by other contracts
  - e.g., use of auto excluded on homeowners policy
- Moral hazard problems
  - e.g., coverage of money limited to \$200 in homeowners policy
- Attitudinal hazard problems
  - e.g., individuals are forced to bear losses that result from their own carelessness
- Coverage not needed by typical insureds
  - e.g., homeowners policy does not cover aircraft

# Basic Parts of an Insurance Contract

- Conditions are provisions in the policy that qualify or place limitations on the insurer's promise to perform
  - If policy conditions are not met, insurer can refuse to pay the claim
- Insurance policies contain a variety of miscellaneous provisions
  - e.g., cancellation, subrogation, grace period, misstatement of age

# Definition of an “Insured”

- An insurance contract must identify the persons or parties who are insured under the policy
  - The named insured is the person or persons named in the declarations section of the policy
  - The first named insured has certain additional rights and responsibilities that do not apply to other named insureds
  - A policy may cover other parties even though they are not specifically named
    - e.g., the homeowners policy covers resident relatives under age 24 who are full-time students away from home
  - Additional insureds may be added using an endorsement

# Endorsements and Riders

- In property and liability insurance, an endorsement is a written provision that adds to, deletes from, or modifies the provisions in the original contract
  - e.g., an earthquake endorsement to a homeowners policy
- In life and health insurance, a rider is a provision that amends or changes the original policy
  - e.g., a waiver-of-premium rider on a life insurance policy

# Deductibles

- A deductible is a provision by which a specified amount is subtracted from the total loss payment that otherwise would be payable
- The purpose of a deductible is to:
  - Eliminate small claims that are expensive to handle and process
  - Reduce premiums paid by the insured
    - Under the large loss principle, insurance should pay for high severity losses; small losses can be budgeted out of the person's income
  - Reduce moral hazard and attitudinal hazard

# Deductibles

- With a straight deductible, the insured must pay a certain amount before the insurer makes a loss payment
  - e.g., an auto insurance deductible
- An aggregate deductible means that all losses that occur during a specified time period are accumulated to satisfy the deductible amount

# Deductibles in Health Insurance

- A calendar-year deductible is a type of aggregate deductible that is found in basic medical expense and major medical insurance contracts
- A corridor deductible is a deductible that can be used to integrate a basic medical expense plan with a supplemental major medical expense plan
- An elimination (waiting) period is a stated period of time at the beginning of a loss during which no insurance benefits are paid

# Coinsurance

- A coinsurance clause in a property insurance contract encourages the insured to insure the property to a stated percentage of its insurable value
  - If the coinsurance requirement is not met at the time of the loss, the insured must share in the loss as a coinsurer

$$\frac{\textit{Amount of insurance carried}}{\textit{Amount of insurance required}} \times \textit{Loss} = \textit{Amount of recovery}$$

# Coinsurance

- The purpose of coinsurance is to achieve equity in rating
  - A property owner wishing to insure for a total loss would pay an inequitable premium if other property owners only insure for partial losses
  - If the coinsurance requirement is met, the insured receives a rate discount, and the policyowner who is underinsured is penalized through application of the coinsurance formula

# Insurance to Full Value

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Assume that 2000 buildings are valued at \$200,000 each and are insured to full value for a total of \$400 million of fire insurance. The following fire losses occur:

2 total losses = \$ 400,000

30 partial losses at \$20,000 each = \$ 600,000

Total fire losses paid by insurer = \$1,000,000

Pure premium rate =  $\frac{\$1,000,000}{\$400,000,000}$

= 25 cents per \$100  
of insurance

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# Insurance to Half Value

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Assume that 2000 buildings are valued at \$200,000 each and are insured to half value for a total of \$200 million of fire insurance. The following fire losses occur:

2 total losses (\$400,000)

Insurer pays only = \$200,000

30 partial losses at \$20,000 each = \$600,000

Total fire losses paid by insurer = \$800,000

Pure premium rate =  $\frac{\$800,000}{\$200,000,000}$

= 40 cents per  
\$100 of insurance

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# Coinsurance in Health Insurance

- Health insurance policies frequently contain a percentage participation clause
  - The clause requires the insured to pay a certain percentage of covered medical expenses in excess of the deductible
  - The purpose is to reduce premiums and prevent overutilization of policy benefits

# Other-insurance Provisions

- The purpose of other-insurance provisions is to prevent profiting from insurance and violation of the principle of indemnity
  - Under a pro rata liability provision, each insurer's share of the loss is based on the proportion that its insurance bears to the total amount of insurance on the property
  - Under contribution by equal shares, each insurer shares equally in the loss until the share paid by each insurer equals the lowest limit of liability under any policy, or until the full amount of the loss is paid

# Pro Rata Liability Example

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**Company A**  $\frac{\$300,000}{\$500,000}$  or  $.60 \times \$100,000 = \$ 60,000$

**Company B**  $\frac{\$100,000}{\$500,000}$  or  $.20 \times \$100,000 = \$ 20,000$

**Company C**  $\frac{\$100,000}{\$500,000}$  or  $.20 \times \$100,000 = \underline{\$ 20,000}$

Total loss payment = \$100,000

# Contribution by Equal Shares (Example 1)

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*Amount of Loss = \$150,000*

	<i>Amount of Insurance</i>	<i>Contribution by Equal Shares</i>	<i>Total Paid</i>
<b>Company A</b>	\$100,000	\$50,000	\$50,000
<b>Company B</b>	\$200,000	\$50,000	\$50,000
<b>Company C</b>	\$300,000	\$50,000	\$50,000

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# Contribution by Equal Shares (Example 2)

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*Amount of Loss = \$500,000*

	<i>Amount of Insurance</i>	<i>Contribution by Equal Shares</i>	<i>Total Paid</i>
<b>Company A</b>	\$100,000	\$100,000	\$100,000
<b>Company B</b>	\$200,000	\$100,000 + \$100,000	\$200,000
<b>Company C</b>	\$300,000	\$100,000 + \$100,000	\$200,000

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# Other-insurance Provisions

- Under a primary and excess insurance provision, the primary insurer pays first, and the excess insurer pays only after the policy limits under the primary policy are exhausted
- The coordination of benefits provision in group health insurance is designed to prevent overinsurance and the duplication of benefits if one person is covered under more than one group health insurance plan
  - e.g., two employed spouses are insured as dependents under each other's group health insurance plan