Chapter 25
Functional Operations of Private Insurers

■ Overview
Up until now, your contact with individuals who work in the insurance industry has most likely been with sales and claims personnel. Both of these important operations require interaction with the general public and these functions are performed away from the company’s headquarters. Have you ever seen an insurance company home office or regional office? In case you haven’t, these buildings tend to be very large structures. Insurance companies need this space because there are many other vital operations that go on “behind the scenes.” In addition to discussing the claims and marketing operations of insurance companies, this chapter discusses other important functional areas of insurance companies, including: ratemaking, underwriting, reinsurance, investments, loss control, and a number of other functions. There are many interesting job opportunities available in the insurance industry. A reinsurance settlement problem set is included for this chapter.

■ Learning Objectives
After studying this chapter, you should be able to:
• Explain the ratemaking function of insurers.
• Explain the steps in the underwriting process.
• Describe the sales and marketing activities of insurers.
• Describe the steps in the process of settling a claim.
• Explain the reasons for reinsurance and the various types of reinsurance treaties.
• Explain the importance of insurer investments and identify the various types of investments of insurers.
• Define the following:

<table>
<thead>
<tr>
<th>Actuary</th>
<th>Loss control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catastrophe bonds</td>
<td>MIB report</td>
</tr>
<tr>
<td>Ceding commission</td>
<td>Producers</td>
</tr>
<tr>
<td>Ceding company</td>
<td>Production</td>
</tr>
<tr>
<td>Certified Financial Planner (CFP)</td>
<td>Public adjustor</td>
</tr>
<tr>
<td>Certified Insurance Counselor (CIC)</td>
<td>Quota-share treaty</td>
</tr>
<tr>
<td>Cession</td>
<td>Ratemaking</td>
</tr>
<tr>
<td>Chartered Financial Consultant (ChFC)</td>
<td>Reinsurance</td>
</tr>
<tr>
<td>Chartered Life Underwriter (CLU)</td>
<td>Reinsurance pool</td>
</tr>
<tr>
<td>Chartered Property and Casualty Underwriter (CPCU)</td>
<td>Reinsurer</td>
</tr>
<tr>
<td>Claims adjustor</td>
<td>Retention limit (net retention)</td>
</tr>
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<td>Class underwriting</td>
<td>Retrocession</td>
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<td>Company adjustor</td>
<td>Retrocessionaire</td>
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<tr>
<td>Excess-of-loss reinsurance</td>
<td>Securitization of risk</td>
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<tr>
<td>Facultative reinsurance</td>
<td>Surplus-share treaty</td>
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<td>Independent adjustor</td>
<td>Treaty reinsurance</td>
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<td>Information systems</td>
<td>Underwriting</td>
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<tr>
<td>Line underwriter</td>
<td>Unearned premium reserve</td>
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</tbody>
</table>
Outline

I. Ratemaking

II. Underwriting
   A. Statement of Underwriting Policy
   B. Basic Underwriting Principles
   C. Steps in Underwriting
   D. Other Underwriting Considerations

III. Production
   A. Agency Department
   B. Professionalism in Selling

IV. Claims Settlement
   A. Basic Objectives in Claim Settlement
   B. Types of Claims Adjustors
   C. Steps in Settlement of a Claim

V. Reinsurance
   A. Definitions
   B. Reasons for Reinsurance
   C. Types of Reinsurance Agreements
      1. Facultative Reinsurance
      2. Treaty Reinsurance
   D. Alternatives to Traditional Reinsurance

VI. Investments
   A. Life Insurance Investments
   B. Property and Casualty Insurance Investments

VII. Other Insurance Company Functions
   A. Information Systems
   B. Accounting
   C. Legal Function
   D. Loss Control Services
Short Answer Questions

1. What is the role of actuaries? Why is their job more difficult than pricing products in other industries?

2. What is the role of underwriters in the insurance industry?

3. Where do underwriters obtain the information they need to make their decisions?
4. In the context of insurance, what is meant by the term “production”?

5. What are an insurer’s basic objectives in settling claims?

6. What are the steps in the claims settlement process?

7. What is reinsurance and why would an insurance company use reinsurance?
8. What is the distinction between facultative reinsurance and treaty reinsurance?

9. Why are investments important to insurance companies?

10. Why does an insurance company need a legal department?
11. If a manufacturing company has its own risk management department, why would this company need loss control services provided by an insurer?

12. HELP WANTED! Fill-in the name of the insurance-related position beside the description of the job.

<table>
<thead>
<tr>
<th>Job Description</th>
<th>Job Title</th>
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<tbody>
<tr>
<td>Great earnings potential! We give you authority to represent our company and products. You market our insurance coverage. We pay you a commission for each policy you sell.</td>
<td>a.</td>
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<tr>
<td>Immediate opening! We need someone to verify that reported losses have occurred and to determine the amount of any covered loss. Applicant must possess strong “people skills.”</td>
<td>b.</td>
</tr>
<tr>
<td>We seek a highly-skilled individual to determine rates for life insurance. Must possess a strong math and statistics background. Excellent pay and benefits!</td>
<td>c.</td>
</tr>
<tr>
<td>WE’RE VERY SELECTIVE about the risks we insure and the people we hire! We need applicants with strong analytical skills to review applications and to select and classify insureds.</td>
<td>d.</td>
</tr>
<tr>
<td>We’re seeking an individual with an engineering background to help us service our insureds. The person we hire will perform factory inspections and make safety recommendations to our policyowners.</td>
<td>e.</td>
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</table>
Multiple Choice Questions

Circle the letter that corresponds to the BEST answer.

1. Which statement is true with regard to insurance ratemaking?
   I. Rates are calculated by people known as adjustors.
   II. An insurer doesn’t know when insurance is sold if the premium charged is adequate.
   (a) I only
   (b) II only
   (c) both I and II
   (d) neither I nor II

2. Individuals who have a higher-than-average probability of experiencing a loss often try to pass as average risks in order to obtain insurance at more favorable rates. What functional area at insurance companies attempts to detect such individuals?
   (a) ratemaking
   (b) claims settlement
   (c) accounting
   (d) underwriting

3. All of the following are reasons for using reinsurance EXCEPT:
   (a) reinsurance increases underwriting capacity
   (b) reinsurance provides protection against catastrophic loss
   (c) reinsurance reduces the number of claims
   (d) reinsurance reduces the unearned premium reserve

4. Integrity Insurance entered into a reinsurance agreement with Omega Reinsurance. Under terms of the agreement, Omega receives 40 percent of the premiums and is responsible for 40 percent of the losses, regardless of the size of the policy written by Integrity. What type of reinsurance is illustrated in this scenario?
   (a) facultative reinsurance
   (b) surplus-share treaty
   (c) quota-share treaty
   (d) excess-of-loss treaty

5. Which statement is true with regard to insurance company investments?
   I. Investment income helps to reduce the cost of insurance.
   II. Pooled premiums of insurance companies are an important source of funds in the economy.
   (a) I only
   (b) II only
   (c) both I and II
   (d) neither I nor II
6. Insurance companies need a legal department for all of the following reasons EXCEPT:
   (a) to review policy terminology before the coverage is marketed
   (b) to prepare the insurance company’s financial statements
   (c) to help in the collection of subrogation recoveries
   (d) to defend liability claims against their policyowners

7. Kevin’s background is market research. He was hired by Alpha Insurance to perform an analysis of consumers in a certain geographic region. His research indicated that although these consumers were fairly affluent, most did not have large amounts of life insurance. Kevin’s position at the insurance company would fall under which functional area?
   (a) claims settlement
   (b) production
   (c) underwriting
   (d) ratemaking

8. All of the following are usual sources of information for an underwriter EXCEPT:
   (a) taped phone conversations
   (b) the agent’s report
   (c) results of a physical exam
   (d) an inspection report

9. Ken lives in a sparsely populated area of western Nebraska. Some insurers that write coverage in this area cannot afford to have a full-time claims adjustor on their payroll. Instead, when a policyowner reports a claim, insurance companies hire Ken to investigate the claim. Ken is a(n):
   (a) independent adjustor
   (b) agent
   (c) company adjustor
   (d) public adjustor

10. All of the following are important underwriting principles EXCEPT:
    (a) selection of risks that can be written at standard rates
    (b) selection according to the company’s underwriting standards
    (c) proper balance within each rate classification
    (d) equity among policyowners

11. As an alternative to reinsurance, some insurers transfer insurable risk to the capital markets through the creation of a financial instrument, such as a catastrophe bond. Such transfers are called:
    (a) immunization of risk.
    (b) avoidance of risk.
    (c) securitization of risk.
    (d) indexation of risk.
True/False

Circle the T if the statement is true, the F if the statement is false. Explain to yourself why a statement is false.

1. Property and liability insurance company investments tend to be of longer duration than do life insurance company investments.

2. Underwriters select and classify insurance applicants.

3. With surplus-share treaty reinsurance, the proportions of premiums and losses shared by the ceding company and the reinsurer depend on the amount of coverage written.

4. Insurance companies do not use information systems.

5. Reinsurance can be used to provide protection against catastrophic loss.

6. The individuals who determine the rate to charge for insurance coverage are called “producers.”

7. One goal of underwriters is to prevent adverse selection from occurring.

8. Company adjustors are independent contractors who insurance companies hire on an as-needed basis.

9. It is impossible for a property and liability insurance company to grow too fast.

10. If an insurance company is using facultative reinsurance, it must look for a reinsurer each time the company uses reinsurance.

11. Insurance companies may limit the amount of coverage they are willing to write on certain exposures.

12. Employment opportunities in the insurance industry are narrow and limited.

13. Catastrophe bonds are issued by insurance companies to help fund catastrophic losses.

Reinsurance Problems

1. Kellwood Insurance entered into a quota share treaty reinsurance arrangement with Jackson Reinsurance. Under the terms of the agreement, Kellwood was responsible for 40 percent of the losses and Jackson was responsible for 60 percent of the losses. Kellwood wrote a $100,000 property insurance policy and the insured suffered a $20,000 loss. How will this claim be settled?
2. Reliable Security Insurance Company entered into a surplus share treaty reinsurance agreement with Ventura Reinsurance. Reliable Security set a retention limit (line) of $150,000; and Ventura agreed to reinsure up to six lines ($900,000). For what portion of the following losses will Reliable Security and Ventura Reinsurance be responsible?

(a) Reliable Security wrote an $80,000 property insurance policy and a $25,000 loss occurred.

(b) Reliable Security wrote a $450,000 property policy and a $60,000 loss occurred.

(c) Reliable Security wrote a $750,000 property insurance policy and a $90,000 loss occurred.

3. Superior Insurance was concerned that the loss experience of its new all-risk coverage would be unfavorable. They entered into an excess-of-loss treaty reinsurance agreement with ACME Reinsurance, setting a retention limit of $2 million in cumulative losses for the policy year.

(a) If losses for the policy year total $1.4 million, what is the liability of each insurer?

(b) If losses for the policy year total $3.6 million, what is the liability of each insurer?
Case Applications

Case 1
When Betty, an underwriter, returned from lunch one day, she discovered a sign had been placed on her desk. The sign featured the word “SALES” in large black letters, with a red circle drawn around the word and a line drawn through it. Another underwriter told Betty that Alan, an agent, placed the sign on her desk. Why would Alan leave this sign on Betty’s desk? Hint—what are the functions of producers and underwriters, and how are producers compensated?

Case 2
Although each of the insurance company operations was discussed separately in this chapter, there is interaction between and among these functional areas. For each of the pairs of functional areas listed below, explain why there might be a need for interaction between the areas.

a. ratemaking and production

b. claims and underwriting
## Solutions to Chapter 25

**Short Answer Questions**

1. Actuaries are ratemakers—they determine the premium to charge for insurance coverage. The pricing of insurance is more difficult than pricing products in other industries. With other products, the cost of goods sold is known in advance. With insurance, the cost is not known until total losses and expenses are known, which may be months or years in the future.

2. Underwriters are charged with selecting and classifying the applicants for insurance. Just because an agent forwards an application to a home office or a regional office does not mean that the coverage will be written. The underwriter may reject the applicant. If the applicant is acceptable, the underwriter must assign the applicant to the appropriate rating category. The classification of acceptable risks is designed to assure equity in the rating classes. Thus, riskier applicants must pay more for their coverage than insureds who are less risky.

3. Underwriters obtain information from a variety of sources, including: the application, the agent’s report, an inspection report, physical inspection, physical exams and physician’s report, and the medical information bureau (MIB).

4. Production refers to the sales and marketing activities of insurers. Agents who sell coverage are known as “producers.” In addition to agents who are visible in the field, there is a production department at the insurer’s home or regional office.

5. The basic objectives of an insurer in settling claims include: verification that the loss occurred and was covered under the terms of the insurance contract, fair and prompt payment of covered claims, and personal assistance to insureds.

6. Before a claim can be settled, the insured must notify the insurance company (or their agent) that a loss has occurred. Upon notification, the insurance company will investigate the claim. Next, the insured must file proof of loss. Finally, the adjustor must make a decision about whether the claim will be paid and if so, the amount of the settlement.

7. Reinsurance refers to the shifting of part or all of the insurance originally written by one insurer to another insurer. The company originally writing the coverage may wish to transfer part or all of the risk to a reinsurer for a number of reasons: to increase underwriting capacity, to stabilize profits, to reduce the unearned premium reserve, and to provide protection against catastrophic loss. Reinsurance also enables an insurance company to retire from a line of business or from a territory.

8. Facultative reinsurance is an optional, case-by-case, method of reinsurance. The ceding company has no pre-established relationship with a reinsurer. When reinsurance is needed, the ceding company shops for it. With treaty reinsurance, the ceding company and reinsurer have a pre-existing agreement. Any coverage written falling within the scope of the agreement is automatically reinsured.

9. Insurance companies have two major sources of income. First, insurers have the insurance products they market. This portion of the business is called the underwriting side of the ledger. Premium income may or may not be sufficient to pay losses and cover expenses. Second, insurers have an opportunity to make money through investments. As premiums are paid in advance, insurance companies can invest these funds and generate investment income. Investment income helps to hold premiums lower and offset any losses the insurer may sustain on the underwriting side of the ledger.
10. A legal department is needed by private insurers for a number of reasons. As part of the liability coverage provided to the insured, the insurer may agree to provide a legal defense. Lawyers are needed to review policy forms before they are introduced, to review advertising copy, and to provide legal advice regarding taxes, marketing, insurance laws, and investments. In addition, lawyers are needed to help collect subrogation recoveries.

11. Loss control services provided by an insurer may be invaluable to the manufacturing company. Loss control engineers are specialists in their area. While the risk management department may be effective in some loss control activities, the services of loss control specialists can help to further prevent and reduce losses. Using loss control services provided by the insurer also may reduce the cost of insurance coverage.

12. (a) The insurer placing this ad is looking for an AGENT to market coverage. Most agents are compensated through commissions on the coverage sold.
   (b) CLAIMS ADJUSTORS verify that losses have occurred and assist in settling covered claims. “People skills” are needed as adjustors deal with people who have suffered a loss.
   (c) ACTUARIES are highly skilled mathematicians and statisticians who determine insurance rates.
   (d) The very selective people this insurer seeks are called UNDERWRITERS. Underwriters select who will be insured by the company, and classify those who they select by placing them in an underwriting classification based on the level of risk.
   (e) This insurer is looking for someone to join their LOSS CONTROL department. In this case, a loss control engineer is needed to help the insurer service its insureds.

Multiple Choice Questions

1. (b) Insurance rates are calculated by individuals known as actuaries, not adjustors. Insurers are not sure whether rates charged are adequate when coverage is sold. Rate adequacy depends on claims and expenses, and insurers can only estimate these values before selling coverage.

2. (d) Underwriters select and classify insurance applicants. The problem described can lead to adverse selection against the insurer unless the underwriters detect these higher-than-average risk applicants and classify them appropriately.

3. (c) The number of claims is independent of whether the coverage has been reinsured. Reinsurance arrangements determine how liability for claims will be apportioned between the ceding company and the reinsurer.

4. (c) Quota-share reinsurance is illustrated in this scenario. Regardless of the size of the risk written by the ceding company, Omega receives 40 percent of premiums and pays 40 percent of losses. It is not facultative reinsurance because Integrity has a pre-arranged reinsurance agreement with Omega.

5. (c) Both statements are true. In the absence of income from investments, insurance premiums would have to be higher. Secondly, pooled premiums are an important source of investment funds. Insurance companies invest in government securities, corporate stocks and bonds, mortgage-backed securities, real estate, and other investments.

6. (b) The insurance company’s legal staff does not prepare the insurer’s financial statements. The insurance company’s accounting department is charged with that function.
7. (b) Production covers many facets of marketing, not simply sales. Kevin’s market research will help Alpha Insurance target the company’s sales efforts.

8. (a) Obtaining information this way would be expensive and may violate privacy rights.

9. (a) Independent adjustors are not employees of an insurance company. They are hired by insurers when needed to adjust claims.

10. (a) Just because the risk cannot be written at standard rates does not mean the risk is uninsurable. Insurers often write coverage on risks that are higher than average and charge these insureds higher premiums and/or include coverage restrictions.

11. (c) The method of risk transfer described is known as securitization of risk.

**True/False**

1. F Property and liability insurance company investments tend to be of shorter duration than life insurance company investments.

2. T

3. T

4. F Given the volume of data that insurers must manage, an information systems (IS) department is essential for insurers.

5. T

6. F It is actuaries, not producers, who calculate rates. Producers are involved in the marketing activities of the insurer.

7. T

8. F Company adjustors are employees of insurance companies. Independent adjustors are hired on an as-needed basis.

9. F Given that property and liability insurers must incur expenses when coverage is written, but can only realize premiums as earned with the passage of time, it is possible for insurance companies to grow too fast. Reinsurance can be used to reduce the unearned premium reserve and provide surplus relief.

10. T

11. T

12. F There are many diverse employment opportunities in the insurance industry.

13. T
Chapter 25 Functional Operations of Privates Insurers

Reinsurance Problems

1. Under this quota-share treaty, Kellwood agreed to pay 40 percent of the losses and Jackson agreed to pay 60 percent of the losses. If a $20,000 loss occurred, Kellwood be responsible for $8000 (0.40 × $20,000) and Jackson would be responsible for $12,000 (0.60 × $20,000).

2. (a) Reliable Security would be responsible for the entire loss as the coverage written ($80,000) did not exceed the company’s retention limit ($150,000).

   (b) Reliable Security would retain one line, $150,000, and shift two lines ($300,000) to Ventura. Reliable Security is responsible for one-third ($150,000/$450,000) of any loss, and Ventura is responsible for two-thirds ($300,000/$450,000) of any loss. So Reliable Security would be responsible for $20,000 of the loss, and Ventura would be responsible for $40,000 of the loss.

   (c) In the case of a $750,000 property policy, Reliable Security would retain one line ($150,000) and shift four lines ($600,000) to Ventura. Reliable Security is responsible for one-fifth of any loss because Reliable Security is providing one-fifth of the coverage ($150,000/$750,000). Ventura is responsible for four-fifths of any loss because they are providing four-fifths of the coverage ($600,000/$750,000). Reliable Security would pay $18,000 of the loss and Ventura would pay $72,000 of the loss.

3. (a) Superior Insurance would pay all of the losses because total losses did not exceed the company’s retention limit.

   (b) If the losses for the policy year were $3.6 million, Superior Insurance would be responsible for losses up to the retention limit of $2 million. Losses in excess of this amount would be the responsibility of ACME. So ACME would pay the remaining $1.6 million of losses.

Case Applications

Case 1

While it is the job of agents to solicit applications for coverage, it is the job of underwriters to determine if the applicants are insurable and, if so, at what rate. Many insurance agents are compensated through commissions, and commissions are only earned when coverage is actually sold. Based on the description provided, it is likely that Alan has submitted a number of applications that Betty either rejected or classified as “riskier than average.” Perhaps the “riskier than average” applicants sought insurance coverage with another company. Alan is displeased with Betty’s underwriting decisions. He is trying to earn commissions while she is finding deficiencies with the applicants that he brings forward.

Case 2

a. Ratemaking may have a direct impact upon production. For example, if the ratemakers determine a rate for a product that is not competitive with other insurers, it will be difficult for the company’s agents to sell the coverage. Agents may also provide input to help price a risk, especially in commercial insurance.

b. The claims personnel adjust losses—they see the types of losses that occur and the extent of the damage. An underwriter may have difficulty evaluating an insurance application because he or she may not be aware of the types of losses that could occur or the potential severity of these losses. The underwriter might call upon someone from the claims area to assist in evaluating loss exposures.