ICP 12A:
An Introduction to Insurance Accounting

Basic-level Module
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# Contents

About the Core Curriculum .......................................................... v

Note to learner ................................................................. vii

A. Introduction .............................................................. 1

B. Systems of accounting .............................................. 3

C. Specific accounting considerations ............................... 19

D. International Financial Reporting Standards (IFRS) .......... 48

E. Reference ............................................................. 50

Appendix I. ICP 12 .......................................................... 51

Appendix II. Balance sheet and income statement for General Insurance Company: Canadian format ............................... 54

Appendix III. Contents of General Insurance submission: Canadian example ........ 57

Appendix IV. Examples of accounting entries .................. 59

Appendix V. Answer key .................................................. 63
Tables
Table 1. Main Relationships Between GAAP and Statutory Reporting . . . . . . . 10

Figures
Figure 1. Simplified Example of a Claims Triangle . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 37
About the Core Curriculum

A financially sound insurance sector contributes to economic growth and well-being by supporting the management of risk, allocation of resources, and mobilization of long-term savings. The insurance core principles (ICPs), developed by the International Association of Insurance Supervisors (IAIS), are key international standards relevant for sound financial systems.

Effective implementation of the ICPs requires skilled and knowledgeable insurance supervisors. Recognizing this need, the World Bank and the IAIS partnered in 2002 to develop a “core curriculum” for insurance supervisors. The Core Curriculum Project, funded and supported by various sources, accelerates the learning process of both new and experienced supervisors. The ICPs provide the structure for the core curriculum, which consists of a set of modules that summarize the most relevant aspects of each topic, focus on the practical application of supervisory concepts, and cross-reference existing literature.

The core curriculum is designed to help those studying it to:

- Recognize the risks that arise from insurance operations
- Know the techniques and tools used by private and public sector professionals to identify, measure, and manage these risks
- Operate effectively within a supervisory organization
- Understand the ICPs and other IAIS principles, standards, and guidance
- Recommend techniques and tools to help a particular jurisdiction observe the ICPs and other IAIS principles, standards, and guidance
- Identify the constraints and identify and prioritize supervisory techniques and tools to best manage the existing risks in light of these constraints.
Welcome to the module on ICP 12A: Introduction to Insurance Accounting. This is a basic-level module on the subject of insurance accounting that does not require specific prior knowledge of this topic. The module should be useful to new insurance supervisors who have no previous experience of the subject and who are interested in understanding how to read insurance accounts as part of their supervisory work. It may also be a useful refresher course for experienced insurance supervisors involved in the design of supervisory reporting or supervisory systems or simply seeking to refresh and update their knowledge.

Start by reviewing the learning objectives, which will give you an idea of what a person will learn as a result of studying the module. Then proceed to study the module either on an independent, self-study basis or in the context of a seminar or workshop. The amount of time required to study the module on a self-study basis will vary, but it is best addressed over a short period of time, broken into sessions on sections if desired.

To help you engage and involve yourself in the topic, we have interspersed the module with a number of hands-on activities and questions for you to complete. These are intended to provide a checkpoint from time to time so that you can absorb and understand the material more readily. Questions dealing with the local situation and related to practices in your jurisdiction are intended to help you apply the material to your local circumstances. You are encouraged to complete each of these activities before proceeding with the next section of the module. An answer key in appendix V sets out some of the points that you might consider when responding to the questions.

As a result of studying the material in this module, you will be able to do the following:
1. Describe the following principles or concepts of accounting and explain the relevance of each to insurance supervisors:

   a. Business entity  
   b. Going concern  
   c. Conservatism  
   d. Objectivity  
   e. Revenue recognition  
   f. Matching  
   g. Cost  
   h. Consistency  
   i. Materiality  
   j. Full disclosure

2. Compare the information needs of insurance supervisors with those of other stakeholders, such as company management, investors, reinsurers, taxation authorities, and policyholders.

3. Explain how these different information needs can influence the preferred accounting basis.

4. Describe alternative approaches to supervisory reporting with respect to the use of financial information prepared for general purposes and explain the advantages and disadvantages of each approach.

5. Identify events that may require insurers to notify insurance supervisors.

6. Describe the relationship between a financial accounting system and a management information system.

7. Explain how professional accounting and actuarial standards influence financial reporting.

8. Contrast the fair value approach to the deferral and matching approach to accounting for insurance enterprises.

9. Describe the main items reported on the balance sheet and income statement of an insurance company.

10. Explain how the accounting rules of different jurisdictions might deal with the following:

    a. Valuation of assets, including unrealized capital gains  
    b. Valuation of technical provisions, including future cash flows, and the corresponding effect on reported income and capital  
    c. Acquisition costs
11. Explain why an insurance supervisor would require regular reporting of the following:

   a. Solo and group-wide financial information
   b. Off-balance-sheet exposures
   c. Outsourced functions.
ICP 12A:
An Introduction to
Insurance Accounting

Basic-level Module

A. Introduction

This module assumes that the reader has an understanding of basic accounting concepts, along the lines normally included in an introductory accounting course at the university level. Rather than provide a basic primer on the subject of accounting, the module describes aspects of accounting that are specific to the field of insurance and, more particularly, are critical to the supervisor in understanding and assessing the business and operations of an insurer.

Notwithstanding this general objective, in order to facilitate understanding, the module also summarizes basic accounting principles (generally accepted accounting principles, known as GAAP), relates these to so-called statutory accounting principles (SAP), and summarizes some advantages and disadvantages of various systems of supervisory reporting.

Deriving from the underlying nature of the insurance business, insurance accounting exhibits a number of interesting attributes. For example, because claims are incurred after the insurance contracts have been sold, insurers must price their product before they know what it will cost them to provide the service they are selling—an unusual situation for any business. Can you imagine an automobile manufacturer having to price its new line of cars when the input costs of labor and material are not only unknown, but are subject to great and unpredictable variation from period to period? In the life insurance field, companies routinely issue contracts where a claim may not be made for 40 or 50 years in the future, and yet it is clear, since the company has undertaken an obligation, that some sort of liability should be reported when the contract is issued. In the field of general insurance (also known as non-life insurance), the time period until
the claim occurs may be shorter, but the company does not know how many claims will be made, when they will be paid, or the ultimate amount that will be paid.

Insurance accounting has to reflect the unique characteristics of the insurance business, which is why specialized accounting techniques are required.
B. Systems of accounting

Insurance supervisors worldwide use two main systems of accounting in various combinations: GAAP reporting and statutory reporting. GAAP constitutes the normal basis of public accounting for most types of business entities. Statutory reporting is specialized and is designed to highlight the particular interests and concerns of supervisors. Not every jurisdiction has separate GAAP and statutory accounting rules; often they are the same in most respects.

Generally accepted accounting principles

Not all regions of the world adhere to exactly the same GAAP rules, but the basic principles included in most, if not all, GAAP regimes are listed below. In each case, additional comments are provided to place the principle in the context of insurance supervision.

The business entity concept

The accounts of a company are kept separate and distinct from the accounts of the owners of the company and from any other legal entities except to the extent that accounts of several entities may be consolidated subject to certain conditions. When parties that are related to the insurance company borrow money from the insurer or engage in other types of transactions with a related insurance company, the business entity concept is called into question, placing the insurance company potentially at risk. Related-party transactions have been the root cause of many serious financial problems among insurers.

The going concern concept

This is the underlying assumption that a business will continue to operate indefinitely into the future, unless there is specific evidence that this may not be the case. By contrast, in many countries insurance supervisors maintain their own accounting rules for supervisory purposes. A very conservative approach is often adopted under statutory accounting rules, which negates the going concern concept. In other words, statutory accounting rules are often built on an underlying assumption that the insurer may have to be liquidated in the near future (the liquidation concept) and that values and transactions should be accounted for on that basis.
THE PRINCIPLE OF CONSERVATISM

Accounting estimates should be fair and reasonable, and while there may sometimes be a range of options when accounting for a particular transaction, a conservative approach is favored over an aggressive approach. A common problem for insurance supervisors is that some insurers adopt aggressive accounting practices that tend to overstate their income and understate their liabilities, thus overstating their financial strength and maximizing the possibility for paying dividends to shareholders and performance bonuses to management. In recent years, the principle of conservatism may have been less practiced than in the past—witness current scandals involving financial reporting of some of the large dot-com companies.

THE OBJECTIVITY PRINCIPLE

Accounting entries should be made on the basis of objective evidence. Objective evidence is evidence that will lead different observers to arrive at consistent conclusions when they review the transaction independently. For example, in countries that do not have developed capital markets, real estate often becomes a major area of investment for insurers. A frequent problem for supervisors in these jurisdictions is to obtain appropriate valuations of buildings and properties that are owned by insurance companies. Valuation approaches that rely on estimates of future cash flows may or may not be objective and have to be analyzed carefully by the supervisor. In contrast, valuation methods that emphasize the sale of similar properties to independent third-party buyers potentially have greater objectivity because they do not involve estimates by persons who may have an incentive to maximize the appraisal value. A preferred alternative could involve the use of both methods to validate each other.

THE REVENUE RECOGNITION CONCEPT

Normally revenue should be recognized in a way that corresponds to provision of the service or product to the customer. Thus when an automobile dealer receives a check and transfers ownership of a new car to its customer, it immediately recognizes the revenue in its accounts. In contrast, a company in the business of providing landscaping services where customers pay in advance should only recognize revenue as the services are provided over time. Insurance contracts present a similar situation. The normal convention is for customers to pay their premium at the beginning of the insurance term (or periodically during that term for policies with more than one premium expected). However, at this point in time the insurer has not yet provided any insurance coverage since the term is just commencing. It would therefore give a misleading picture of an insurer’s earnings if premiums were recognized as revenue at the time the customers...
pay their premiums. Instead, premiums are “earned” over the term of the policy (or period for which premiums have been paid). See the detailed discussion on accounting for premiums in section C.

THE MATCHING PRINCIPLE

Expenses related to the generation of revenue should be expensed in the periods that relate to the corresponding revenue. When a particular expense is incurred, it is usually in the expectation that it will help the company to earn income in the future. If there is good evidence that a particular expense will help to generate revenue over the next three accounting periods, then the expense would normally be spread over those three periods, matching expenses and revenue. A classic example of this is the commission paid to an agent or broker on the sale of an insurance contract. If the contract is for 12 months, then according to the revenue recognition concept the revenue will be earned over the period of the contract rather than at the time of selling the contract. Similarly, under the matching principle, the commission will likewise be spread over the term of the contract because the expense (the commission) will generate revenue for 12 months into the future (subject to some other considerations such as recoverability). To be conservative, some statutory accounting regimes do not follow the matching principle for commissions and other acquisition expenses but require instead that the entire expense be written off (that is, be fully expensed) at the time the premium on which it was based is received or the expense is incurred.

THE COST PRINCIPLE

Assets should be recorded at their actual cost. This is in keeping with the objectivity concept because cost is a known and documented amount. If the purchase is from an independent third party, the cost should be a good estimate of the worth of the asset to the purchasing company at the time of the purchase: if the value is higher, the independent seller generally would not be willing to sell it for a lesser amount; if the asset is worth less to the purchaser than is indicated by its actual cost price, then the purchaser presumably would have no reason to make the expenditure. This is also in keeping with the objectivity principle.

The recorded cost of an asset in the company’s accounts is often referred to as the book value of the asset (although in some situations book value could be different than cost). If there is strong, objective evidence that the value of an asset has permanently changed, then most GAAP regimes permit (subject to various conditions and safeguards) the company to write up or down the asset value on its books. Some GAAP regimes require that the current market value of a security be held. Statutory insurance accounting rules, where they exist, are usually even more emphatic than GAAP regimes in insisting that assets be recorded at cost (also in keeping with the principles of con-
servatism and objectivity) or sometimes even at the lower of cost or market value (to be even more conservative).

**The Consistency Principle**

Businesses should use the same accounting procedures to record similar transactions in different periods. If a different treatment is used from one period to another, the change should be disclosed to the reader of the financial statements and the impact of the changed procedure should be indicated. If this principle were not followed, companies would be free to pick and choose their accounting practices from year to year in ways designed to maximize their reported earnings. This principle affects insurance companies in the same way as other businesses.

**The Materiality Principle**

All financial information deemed to be material (or important) to the users of the information must be included. Reporting on very minor matters would cause the accounting reports to become too voluminous, which, in turn, could cause truly important information to be overlooked. An issue can arise here for insurers (and supervisors) when the insurers change their assumptions in several areas at the same time and the effect of any one change would not be material, but, when taken together, there may be a material impact on earnings. Guidance is emerging from actuarial organizations and supervisors on the need to report the source of earnings to deal with concerns in this area (in keeping with the full disclosure principle).

**The Full Disclosure Principle**

All important matters should be disclosed to the readers of financial statements, even if they do not affect the ledger accounts directly. In these cases, the disclosure should be by way of notes to the financial statements. Typical examples are outstanding lawsuits, tax disputes with the government, and company takeover attempts. Insurance companies may be involved with so-called off-balance-sheet items, such as some derivative instruments, where the insurer contracts to make certain purchases or sales, depending on specified future conditions. Where the impact of these off-balance-sheet items are, or conceivably may be, material, they should be disclosed in the notes to the financial statements. For greater certainty, many supervisory filings include specific exhibits where insurers must disclose the nature and potential financial impacts of these off-balance-sheet items.
The balance sheet and income statement format required for a general insurer under Canadian GAAP is shown in appendix II. The entire financial filing for both life and general insurers can be downloaded from http://www.osfi-bsif.gc.ca/eng/forms/index.asp.

Many countries have an accounting and auditing institute or association that is responsible for establishing specific GAAP standards within the jurisdiction. In some countries, GAAP standards are established by a standard-setting body that is independent of the accounting profession.

**Summary**

While in most cases the specific rules will be based on the general principles set out above, accounting standards worldwide are in a state of transition. For example, over the past few years, the cost principle and the matching principle have come under particular pressure, to the point where the United States and some other countries have adopted what is known as a fair value basis for recording certain asset and liability values for financial instruments. For more discussion of current trends in this area, see section D on international financial reporting standards.

A country’s institute of accountants and auditors is generally also responsible for putting in place the standards of professional practice that apply to its members as they carry out their responsibilities. Sometimes there are separate associations for the development of accounting standards and the development of auditing standards. (Accounting institutes in some smaller countries simply adopt the professional accounting and auditing standards of a larger country in order to save time and money.)

As is well known, over the last few years there have been some major corporate scandals as the GAAP framework has been stretched by aggressive accounting and auditing practices. The resulting corporate collapses have shaken up the accounting world, and in many developed countries there has been a move to tighten up accounting principles, auditing standards, and corporate governance in general.

**Statutory accounting principles**

One can make the case that insurance companies and other types of financial institutions are fundamentally different from other types of businesses. For one thing, in addition to having equity financing, insurers are significantly financed by their customers (policyholders) by means of cash premiums paid in advance and by claim liabilities that have not yet been discharged. Thus an unscrupulous insurer or other type of financial institution has easy access to public funds, which could be misappropriated. In most other types of businesses, non-shareholder financing is by way of bank loans and borrowings on the capital markets, so the funds are coming from sophisticated lenders who
are in a position to assess critically the ability of the business to honor its obligations. By contrast, policyholders are not likely to think of their premiums as being similar to an investment in the insurer, nor are they likely to have the ability to evaluate the insurer from that perspective. In the early days of insurance, when the time came to pay, many insurers did not have sufficient funds to discharge their obligations. Characteristics such as these have led to an acknowledged need for supervisory oversight to protect the public.

The supervisory authority represents the interests of policyholders and therefore needs to work with information that highlights this perspective. An important way of accomplishing this goal is to modify the going concern concept and to replace it with what is often referred to as a liquidation concept. Rather than assume that the entity will continue indefinitely into the future and that it is therefore reasonable to defer various expenses to future periods (using the matching principle), the assumption is made that the insurer may have to be liquidated in the not too distant future. In that case, one would want to make sure that most expenses are charged to the current period rather than deferred. (This might better be termed a semi-liquidation concept because it does not usually involve a full worst-case scenario.) Deferred expenses are shown as assets under GAAP, but (in most cases) they will not be realized in the event of liquidation and so will not be available to protect policyholders; thus they are frequently given zero value under SAP.

For similar reasons, the supervisor will want to follow a conservative approach by taking account of various contingent liabilities as if they were real liabilities. For example, under GAAP if an insurer cedes reinsurance to a reinsurer, the liability will be removed from the balance sheet of the insurer (or an offsetting asset will be recorded) and will appear on the balance sheet of the reinsurer. However, this assumes that the reinsurer will be able to discharge all of its reinsurance obligations to the ceding company. Using a statutory accounting perspective, the supervisor may very well require the insurer to establish a special reserve for reinsurance ceded to reinsurers that are not of the highest financial standing or are not licensed in the jurisdiction. In the United States and some other jurisdictions, a ceding company is not allowed to take credit for reinsurance to an unlicensed reinsurer unless special collateral is established. Of course, the amount of collateral will normally be based on estimated outstanding claims and unearned premiums. Estimated claims may be understated, and a relatively small amount of unearned premium can turn into a large claim, so holding collateral does not guarantee that policyholders will be fully protected.

Under GAAP, provisions must be made when there is a significant likelihood that amounts due will not be collected. In other words, the company must set up a liability item (known as provision for losses) to offset the questionable asset. On the one hand, the amount of the provision and the timing of its establishment are a matter of judgment and depend on the specific details of the situation. On the other hand, the supervisor usually prefers to replace judgment with some sort of specific and reasonably conservative rule. For example, when amounts due from brokers have been outstanding
for more than 90 days, SAP will usually require that the insurer reduce the amount of the reported asset by the excess over 90 days. Under GAAP rules, the insurer would make a provision for doubtful accounts at such time and to such extent as the brokerage account in question is judged to be non-collectable. This could be either sooner or later than 90 days.

Generally speaking, the cumulative effect of these types of differences tends to favor a conservative statement of the company’s position under SAP relative to GAAP, with SAP emphasizing the importance of policyholder interests over shareholder and management interests. However, ICP 23 on capital adequacy and solvency, essential criterion d, stipulates, “Capital adequacy requirements are sensitive to the size, complexity, and risks of an insurer’s operations, as well as the accounting requirements that apply to the insurer.” Thus care should be taken to ensure that statutory capital requirements recognize the basis on which the statutory statements are prepared.

Exercise

1. **SAP rules generally mandate a conservative approach to accounting. Consider and discuss the following statement:**

If statutory accounting principles had been followed by companies such as Enron, Worldcom, and Parmalat, the accounting excesses that made their operations appear to be highly profitable—when subsequent developments showed this was not the case—would not have occurred, and the companies would not have failed.

**If you think the statement is correct, then why do you think that SAP-like accounting regimes are not being recommended for adoption by companies in general?**

**Financial reporting for insurance supervisors**

ICP 12 makes it clear that supervisors require detailed financial, statistical, and actuarial information on a timely basis. This information is needed to assess risk levels in insurers, to monitor their ongoing financial condition, and to ensure that the capital and surplus resources of the insurer are adequate relative to the liabilities being assumed. However, ICP 12 does not specify the basis on which this information is to be provided.
THE BASIS OF FINANCIAL REPORTING TO SUPERVISORS

In some countries, the government and supervisors have stipulated that GAAP will not apply to insurance companies in their jurisdiction and that insurers will report to supervisors using a statutory basis. Regular and timely submissions to the supervisor will generally include financial statements on a statutory basis as well as many additional supporting exhibits designed to provide the supervisor with useful information about the company’s financial situation, trends in its business, and so on.

In other countries, GAAP (as may be defined in the particular jurisdiction) does apply to insurance, and the GAAP framework may include specific rules with regard to accounting for particular insurance-related transactions. These specific rules remain within the framework of GAAP principles listed above but take account of the unique nature of the insurance business (without adopting the perspective underlying statutory reporting). For example, the GAAP framework in a country might include detailed guidance for accountants and auditors on how they should account for unearned premiums, with the prescribed treatment being in accordance with the matching principle, the revenue recognition principle, and so on.

Table 1 summarizes the main relationships between GAAP and statutory reporting.

### Table 1. Main Relationships Between GAAP and Statutory Reporting

<table>
<thead>
<tr>
<th>General purpose (public) reporting</th>
<th>Supervisory scenario</th>
</tr>
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<tbody>
<tr>
<td>GAAP applies to insurance</td>
<td>1. Insurers only file GAAP financials with the supervisor (but this is not in keeping with international practice or the essential requirements of ICP 12 because the supervisor will not receive the type of detailed information that is needed for statutory decisionmaking and risk-based supervision.)</td>
</tr>
<tr>
<td>GAAP applies to insurance</td>
<td>2. Insurers file both GAAP and statutory financials with the supervisor, along with detailed supporting exhibits. The public is able to see both the GAAP and SAP financial statements. The United States is an example of this situation.</td>
</tr>
<tr>
<td>GAAP applies to insurance</td>
<td>3. Insurers file GAAP financials and detailed supporting exhibits with the supervisor. The supporting exhibits include a reconciliation of the differences between GAAP figures as reported and what would have been reported if certain statutory rules had been followed. These supporting exhibits do not “define” an accounting system; they merely mandate particular adjustments to GAAP figures for supervisory review. The supervisor would then apply minimum solvency criteria and other similar requirements to the adjusted figures. The total amount by which GAAP equity exceeds the equity that would result from all the adjustments of the supervisor is shown on the GAAP statement as an appropriation of surplus—that is, it is not available to be paid out in dividends and is the amount, which in the supervisor’s opinion, needs to be retained in the company to provide appropriate protection to policyholders. In this way, readers of the financial statements can see the implications of the supervisory rules, but the company’s GAAP financial reporting is not affected. Canada is an example of this situation.</td>
</tr>
<tr>
<td>GAAP does not apply to insurance; all insurance reporting is SAP</td>
<td>4. Insurers file financial statements on a statutory basis only, with detailed supporting exhibits for the supervisor. This means that the public, including potential investors, will only see statutory financial statements for insurance companies. This situation applies in a number of countries, particularly those without publicly traded insurers.</td>
</tr>
</tbody>
</table>
Statutory accounting offers certain advantages to the supervisor, the primary one being that the financial statements are prepared from a perspective that highlights supervisory concerns. Therefore, conservative approaches are mandated, and the policyholder perspective is given priority. The fact that the supervisor, with its knowledge of the insurance industry, has defined the accounting rules may also lessen the possibility that the accounting rules produce unintended results; for example, they would not include rules designed to deal with issues in other industries, which might be inappropriate when applied to insurance companies.

However, there are some important disadvantages with statutory accounting. First, because the supervisor defines the accounting rules, the industry will expect (and require) detailed instructions about the rules the companies are to follow. GAAP represents a substantial body of information, including principles, rules, precedents, professional guidelines, and so on, and is not easily replicated. The bottom line is that a requirement for statutory accounting often means that the supervisory authority will have to allocate a significant portion of its resources to accounting issues. From a risk-based perspective, this may not be the best use of scarce resources. (The United States may be a special situation because much of the work having to do with accounting issues is handled by the National Association of Insurance Commissioners, so the insurance supervisory authority in each state does not have to allocate a significant portion of its resources to accounting issues.)

Second, the professional standards and rules intended to govern the activities of independent auditors in a country are usually applicable only in respect of audits of GAAP financial statements, due either to restrictions in the auditing rules themselves or to limitations in the definition of local statutory accounting rules. As a result, there are many countries where SAP statements are audited, but the audits are not very meaningful because they are not subject to the same professional standards that would apply in the case of GAAP. Therefore, the use of statutory accounting may weaken the degree of reliance that the supervisor is able to place on independent audits. In most countries, supervisory authorities do not have surplus resources, which means that the inability to place greater reliance on outside professionals such as auditors may impair their ability to make effective use of supervisory capacity.

Third, as capital markets develop and grow, many more domestic companies, including some insurance companies, will want to list their shares on the local stock exchange. If insurance company financial statements are required to comply with a more conservative accounting regime than other companies, insurers may be placed at a significant disadvantage in their ability to compete for financing in the public markets. Also, if GAAP is required for public reporting but statutory rules apply for reporting to the supervisor, there may be confusion about insurers’ actual financial positions because there will be two different sets of accounting systems with different numbers being quoted for the same items. In developed countries, this is likely to be less of a concern because sophisticated users of financial statements understand the basis of the differences between GAAP and SAP.
Because Canada follows the third scenario mentioned in table 1—the financial statements in GAAP form are also specified for use by the supervisor—the balance sheet and income statement presented as appendix II are for both public and supervisory reporting.

**Substance of financial reporting to supervisors**

Apart from the basis on which the annual supervisory return should be completed, it is also important to consider what information should be included in the return. In this regard, it is useful to consider the wording of ICP 12, essential criterion c:

The supervisory authority:

- Requires insurers to submit information about their financial condition and performance on both a solo and a group-wide basis. It may request and obtain financial information on any subsidiary of the supervised entity
- Sets out the principles and norms regarding accounting and consolidation techniques to be used. The valuation of assets and liabilities should be consistent, realistic, and prudent (refer to ICP 21, essential criterion b)
- Requires insurers to report any off-balance-sheet exposures
- Requires insurers to report on their outsourced functions
- Requires that the appropriate level of an insurer’s senior management is responsible for the timing and accuracy of these returns
- Requires that inaccurate information be corrected and has the authority to impose sanctions for deliberate misreporting
- Based on this information, maintains a framework for ongoing monitoring of the financial condition and performance of the insurers.

As an example of the material that might be included in a supervisory return, appendix III presents the table of contents from the annual supervisory return that OSFI, the Canadian supervisor, requires of general insurers. Copies of the entire submissions for general insurers and life insurers are found at http://www.osfi-bsif.gc.ca/eng/forms/index.asp. Supervisors should keep in mind that the industry-wide costs of preparing supervisory returns are not insignificant and will ultimately be passed on to policyholders. It behooves supervisory authorities to require insurers to submit only such information as is needed to assess their financial strength and future viability in accordance with supervisory objectives.

Regardless of the specific format of the supervisory submission, the supervisor will need to have basic financial data, including enough supporting data to calculate generally accepted early warning ratios as well as operational ratios such as the expense ratio and the claims ratio by line of business. Information on the geographic spread of
operations will also be required, including a breakdown between domestic and foreign operations. Reasonable detail will be required with regard to investments owned so that the supervisor can assess the quality of the investment portfolio. Reinsurance information will also be needed to assess risks in this area. As mentioned in the section on claim liability, information with respect to the adequacy of claim provisions should also be included, generally consisting of at least a claims triangle for the business as a whole.

**Exercises**

2. The supervisor should never require any information that is not otherwise required by senior management and the board of directors to chart the course of the company. Discuss this statement. Do you agree? If not, provide some examples of information that you think is necessary for the supervisor but not necessary, or not of significant importance, for company management.

3. Appendix III presents the format of the annual financial filing required by the Canadian supervisor, OSFI, from general insurers. Appendix II presents the balance sheet and income statement required as part of the annual filing. Review these documents and compare them with the format for the submission used in your own jurisdiction. Do you see areas where you think the Canadian form could be improved?

**Reporting of critical events**

In some countries, the insurance law requires independent auditors to report to the supervisor in any case where they become aware of an event that could significantly and adversely affect the financial position of the insurer or its well-being, or wording to that effect. Similarly, the law may impose a responsibility on the board or senior management to notify the supervisor in the event of any such adverse developments, quite apart from the normal reporting requirements. Such provisions may be termed requirements for critical event reporting, and, because of the seriousness of the events involved, they can play a key role in providing supervisory information. Nevertheless, in most jurisdictions, such reporting is unlikely to occur unless there is a formal legal requirement for specific parties to take action. This is a good reason for including such a provision in the law if that is feasible in the jurisdiction.
THE ISSUE OF OUTSOURCING

Supervisors need to be in a position to assess risks within an insurer, and a relatively recent area that can be important in particular situations relates to what is commonly termed outsourcing.

Outsourcing is the practice by insurers and other companies of appointing other firms on a contractual basis to carry out certain functions that otherwise would be performed by the insurer itself. An insurer may decide to outsource a function to another corporation (generally it would have to be a non-insurance company because otherwise there would be a conflict of interest) because that other corporation is seen as having the outsourced activity as its core competency, whereas for the insurer the activity is ancillary to its main activities of underwriting and claims settlement. In these circumstances, the other corporation may indeed be able to provide the insurer with more effective service, more efficient service, or both, compared to the insurer’s own staff.

A common example of outsourcing arises in the case of investment management. Many small insurers do not have a sufficiently large investment portfolio to justify the expense of retaining one or more professional asset managers in house. Therefore, the insurer may decide to outsource its investment management function to a professional asset manager who has a well-established track record of excellent performance. Sometimes information technology services are also outsourced to specialty providers who have greater expertise than the insurer can maintain in house.

Three key supervisory considerations arise in connection with outsourcing:

- The underlying contract needs to provide strong protections for the insurer. For example, in the case of information technology services, it must be absolutely clear that the outsource provider will maintain foolproof backup and emergency protection of the insurer’s data and that it has the resources to carry out this pledge, as a loss of data could be catastrophic for the insurer.
- The contract must ensure that the supervisor will have satisfactory access to information. The insurance law may not entitle the supervisor to obtain information from the outsource provider in the same way that information can be obtained from the insurer.
- The outsourced activity should not be a core function of the insurance company, such as underwriting or claims settlement, because the licensed insurer, being the entity to which all the provisions of the insurance law applies, could end up as a phantom company, with all of its activities carried out by unsupervised outsource providers.

A key point to keep in mind is that the insurer remains responsible and should closely oversee the work of the administrators. The supervisor has to be confident that this is being satisfactorily accomplished. Some jurisdictions have adopted regulations in respect of outsourcing that are intended to deal with the types of concerns mentioned here.
Another area that often requires specialized reporting to the supervisor relates to the use of derivative instruments. These are financial instruments for which the return depends on the return on other underlying assets. For insurers and other financial institutions, derivative contracts are often entered into as a way of helping to manage the risks associated with the assets presently held. For example, if an insurer owns a block of assets that will be devalued if interest rates rise, it could hedge that risk by entering into a derivative contract designed to generate a positive return of equal magnitude given the same move in interest rates. In this way, the risk of a loss on the first asset would be offset by holding the derivative contract, which would give rise to a gain under the same set of circumstances. When a derivative contract is entered into other than as a hedge—sometimes referred to as an open contract—the leverage can be very high indeed, which means high potential risk. Consequently, insurance law or administrative policy in some countries only permits insurers to use derivatives for the purpose of hedging existing risks; these jurisdictions do not allow insurers to hold “open” derivative positions. For more information, see ICP 22 on derivatives, module ICP 22A on types of derivatives, and module ICP 22B on the uses of derivatives by insurers.

There are two main types of derivative contracts. One is termed a forward commitment, which consists of a binding contractual arrangement in which two parties agree to engage in a transaction at a future date at an established price that is included in the contract. The other main type of derivative is usually referred to as an option. In this case, one party to the contract has the ability to buy or sell an underlying asset from the other party at a fixed price and over a specified period of time, but there is no obligation to exercise the option. Thus an option provides one party to the contract with the flex-

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1. An interest rate swap is an example of a forward commitment.
iability to do nothing, to buy at specific terms, or to sell at specific terms, over a period of time.

Because unexercised derivative contracts only represent contractual possibilities for future gains or losses, they tend not to be picked up in traditional GAAP income statements and balance sheets, although they usually must be disclosed if they are material. The problem is, however, that mere disclosure, especially if the derivatives are numerous and complex, does not provide a transparent picture for the reader of the financial statements. Accounting standards boards in many countries have been struggling with this issue, especially after the use of improper, improperly designed, or improperly reported derivative contracts were important factors in the failure of a number of major corporations such as Enron.

Insurance supervisors also benefit if new accounting techniques give rise to more informative reporting for these types of financial instruments. In the meantime, supervisors frequently require the details of off-balance-sheet items to be included in the annual supervisory filing. For example, in the annual filing for general insurers referenced in appendix III, the Canadian supervisor provides the following instruction regarding derivative contracts:

Insurers must provide with their annual returns:

(1) The following details for each type and class of instrument outstanding at year-end:
   - Notional amount and remaining term to maturity
   - The underlying assets
   - Whether it is an over-the-counter or exchange-traded instrument
   - Whether the instrument is held for (i) trading purposes, (ii) hedging purposes, or (iii) other purposes and
   - The maximum credit risk exposure for each type of instrument.

(2) The following details for each type and class of instrument held during the year and not outstanding at year-end:
   - Notional amount
   - The underlying assets
   - Whether it is an over-the-counter or exchange-traded instrument and
   - Whether the instrument was held for (i) trading purposes, (ii) hedging purposes, or (iii) other purposes.

Management reporting

The management of the insurer obviously requires timely and accurate information, perhaps to a greater degree than anyone else, in order to monitor the company’s actual
performance relative to the business plan and to initiate corrective actions as required to meet corporate objectives.

Management reporting includes basic financial accounts because this is the way in which performance is measured and tracked. However, in addition to the basic data making up the balance sheet, income statement, and other accounts, management reporting is concerned with operational data. For example, on the revenue side, the management report would normally include items such as sales by type of policy, number of policies sold during the month, average premium per policy, geographic breakdown of sales, and so on. With regard to expenses, in addition to recording absolute amounts, as is the case with the financial accounts, management should be interested in having information on expenses by regional office, expenses by employee per office, the cost of various services such as legal expenses, claims adjustment expense by product line, and so forth. Unit costs, such as the cost per policy in force or cost of each policy sold, may also be useful indicators of management performance.

Again depending on the type of business involved, the management reporting system should include data for a sufficient number of comparative periods to demonstrate emerging trends, because senior management has the job of guiding the company and correcting for any adverse trends (with board input as required). The package should be sufficiently detailed for management to assess the performance of all key areas in a meaningful way, but not so detailed as to overwhelm the reader with a vast quantity of detailed information that is likely to obscure the emergence of important trends or developments.

Section C discusses consolidated reporting and the reasons it can be important to the supervisor. Consolidated financial and operational information can also be important to company management in cases where the operations of other affiliated or subsidiary entities may have a significant impact on their own company, especially when the management team has the ability, either directly or indirectly, to influence the managerial decisions affecting these other entities.

Needless to say, operational and financial results for any significant outsourced functions should also be highlighted in the management reporting package. If outsourcing is to provide the hoped-for benefits, the insurer’s management will have to monitor developments in this area carefully. When activities have moved outside the direct day-to-day control of the insurance company, more vigilance rather than less is the order of the day.

With today’s rapidly changing business environment, the frequency of management reporting is also an important consideration: it will normally be monthly rather than semiannually or annually.

In summary, a company’s management reporting system should be sufficient, having regard for the types of products being sold, the geographic diversity of the business, the overall size of the operation, and other factors to enable senior management to monitor operational performance, take corrective action, and report to the board on all significant developments. In some cases, there may even be a legal requirement for se-
nior management or the board to bring the insurance supervisor into the picture when particular events or situations arise.

An insurer’s periodic management reporting package is an extremely useful supervisory tool in two important ways. ICP 10 on internal control mentions that an important aspect of an insurer’s internal control system is that “management is able to identify, assess, manage, and control the risks of the business and hold sufficient capital for these risks.” A supervisory review of an insurer’s management reporting package provides considerable insight into the extent to which the insurer will be able to “identify, assess, manage, and control the risks of the business.” Management reporting systems also provide a useful perspective on the overall expertise and competence of senior management. Cleverly designed monthly reporting packages that chart the course of progress and highlight important facts about the business for management action tend to be correlated with the presence of strong management, especially if additional investigation demonstrates that senior management is making good use of the information (such as by having regular meetings of the senior management group where the most recent reporting package is the focus of discussion). A management information package that is overly detailed or complex and does not highlight important information for management action is a worrying sign and suggests that the supervisor may need to pay close attention to the company’s operations.

**Exercise**

5. Does the supervisory authority under your law have the power to obtain an insurer’s management reporting package on a regular basis, assuming for the sake of argument that the insurer is considered to be higher than acceptable risk? Comment on the value of this type of information from a supervisory perspective.
C. Specific accounting considerations

Under any of the systems of accounting described in section B, the financial statements of an insurance company will include an income statement and a balance sheet. Where an insurance company is part of a group, financial statements may also be produced that consolidate the accounts of the insurer with those of other members of the group. The various unique characteristics of the insurance business affect the preparation of these financial statements. This section examines the most significant specific accounting considerations that arise and how they can be dealt with.

The income statement: Revenue

The main elements of an income statement are revenue and expense. For an insurance company, revenue consists mainly of premiums and investment income, although some insurers may also have other sources of revenue, such as service fees. The premium revenue of an insurance company will be affected by its reinsurance activities. The accounting for each of the main items of revenue is examined in turn.

Accounting for premiums

The main revenue item for an insurance company is, of course, premiums from policyholders. (Although for a life insurer, investment income can sometimes represent an even larger source of revenue than premiums).

Let us consider a theoretical situation where a policyholder takes out a fire insurance policy on his house on July 1 and pays an annual premium of $1,200. It would be wrong to consider the full amount of the premium as revenue for the insurer at that moment because, according to the revenue recognition principle, revenue should be earned over time as the company discharges its obligation to the customer. In this case, if the premium is paid on July 1, no revenue would be recognized at the time of payment because no insurance coverage has yet been provided. However, by the end of July the insurer would have provided 1/12th of the coverage agreed to and would therefore be justified in considering 1/12th of the premium, or $100, to be revenue for the period. Because the premium is recognized over time, we say it is “earned” over the term of the policy. In this example, the insurer will show revenue—that is, premium earned—of $100 per month in respect of this individual policy. The total revenue for the insurer for each month is simply the total of all premiums earned over that period from the many individual policies in force.

From an accounting perspective, when premiums are received, a cash asset is created, along with a corresponding unearned premium liability; as coverage is provided

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2. Unless a corresponding liability is established for the unexpired contractual obligation.
and premiums are earned, the reduction in the unearned premium liability is recognized as income in the financial statements.

In most cases, premiums are earned pro rata over time because the insurance service provided—the coverage—is the same over each unit of time. In the homeowner’s insurance policy mentioned above, the underlying risk of loss is not expected to vary significantly from month to month, so the service provided is the same each month, and the premium earned is therefore also unvarying from month to month.

In some cases, however, the underlying risk is not the same over time. Because the revenue recognition concept requires that premiums be earned on the basis of the service provided—that is, the degree of risk being covered by the insurer—the amount of premium earned in each period will not be the same. A classic example occurs with a product that is commonly offered in North America: automobile extended-warranty insurance. This is an extension of an automobile manufacturer’s warranty, and it only comes into effect when the manufacturer’s warranty expires. Let us suppose that the manufacturer’s warranty is for four years, and the insurance policy will extend that for an additional three years. Let us also suppose that there are credible statistics to indicate that, for a certain model of car, of all the warranty claims made in years five, six, and seven, 17 percent will be in year five, 33 percent in year six, and 50 percent in year seven. Typically, the consumer pays the total premium in a lump sum when the car is purchased. If the premium for a particular car is $1,000, the insurer should record premiums earned as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Premium earned (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>170</td>
</tr>
<tr>
<td>6</td>
<td>330</td>
</tr>
<tr>
<td>7</td>
<td>500</td>
</tr>
</tbody>
</table>

No premium is earned in any of the first four years because there is not yet any risk to the insurer—that is, the insurer has not begun to provide the service contracted by the policyholder. The premium earned in each year after the policy begins to provide protection is proportional to the underlying risk of loss in each period.

While the example relates to a specialized type of insurance coverage, supervisors should not forget the basic principle involved—that is, the premium earned is proportional to coverage provided over time—because other types of policies can also have nonproportional earning of premiums and, if the correct basis of earning premium is not followed, the resulting financial statements will give a wrong indication of revenue.
This could dramatically distort the insurer's stated financial results. For example, if the insurer received a premium of $1,000 at the beginning of a six-year period, and if it followed the assumption from the homeowner's example, in which premium was earned evenly over a one-year period, then it would show premiums earned of $1,000 in year one with no premium revenue in any of the following years. Since no claims could be incurred under the automobile extended-warranty policy until the beginning of the fifth year at the earliest, the company would record an underwriting profit of $1,000 on every policy written ($1,000 premium with no claims) during the first year. The company would record no profit or loss during each of the next three years (no premiums and no claims). However, claims would then begin to come in with increasing frequency, and the company would have no premium revenue with which to pay them, resulting in huge underwriting losses.

Incorrectly accounting for premium income has led to the failure of more than one insurer, as premiums were earned in a way that did not correspond to the incidence of risk under the policy, making the business appear to be extremely profitable during the early part of coverage. These companies then “spent” their big profits by way of dividends to shareholders, improved premises, and nice cars for management, with the result that, when the claims began to be reported, the remaining assets were not sufficient to cover the emerging liabilities.

A point made earlier is that premium amounts are known when the policy is issued, whereas the cost of claims is not known until later on. If premiums are being recognized as earned sooner than they should be, a rapidly growing portfolio—even if the business is not particularly long tail—will give rise to a significant gap between premium income and claim expense, leading some insurers to believe that their earned claims ratio is lower than will actually prove to be the case as the portfolio matures. The supervisory authority should bear this point in mind when encountering this type of circumstance.

The foregoing description and examples are from the realm of general insurance. In the case of life insurance, premium will be determined on the basis of an actuarial calculation that takes account of the fact that the term of the policy is typically expected to be many years, with the risk varying according to mortality experience over the period.

Let us consider a 20-year term policy being issued to a 40-year-old applicant. The insured is going to pay a stream of annual premiums over a 20-year period. If the actuarially based premium for a 40-year-old is $1,000, then the policyholder should pay that amount in the first year. However, we know that the risk of death increases over time and so perhaps in the last year, when the policyholder is reaching the age of 60, the risk-based premium for this same policyholder should be $2,500. This would be an awkward situation, however, with the policyholder having to be billed an increasing amount each year (also providing an unwelcome reminder of the increasing mortality risk!). Therefore, the insurer will charge the policyholder an “average” premium that takes account of the changing risk over time as well as the time value of money over
the 20-year period. In the early years, the average premium will be higher than the premium that should actually be charged based on risk. As time goes by, the average premium will become less than the actual premium that should be charged. Therefore, in the early years of the policy, the insurance company will be building up a liability to the policyholder because the policyholder has, in effect, paid in advance for coverage not yet received. This is analogous to the situation with general insurance, where the policyholder pays in advance, giving rise to the unearned premium liability. In life insurance, however, the amount is part of the actuarial (technical) liability rather than being shown as a separate item. In the later years, this policy’s technical provision will be drawn down to compensate for the shortfall between the premium paid and the actual risk of loss under the policy.

In summary, under a matching approach, general insurance premiums are earned over time, with the amount earned in each period being proportional to the risk that has expired under the policy. In most, but not all, cases, the risk does not vary significantly over time and, in that event, the premium will be earned evenly over the term of the policy. In life insurance, premiums are generally taken into income as they are earned in each period, with any adjustment included in the technical (or actuarial) liability.3

When life insurers sell investment-type contracts such as deferred annuities that lack insurance risks, the full amount of the customer’s payment is often recorded in the accounts as premium, even though most of the amount paid is probably more in the nature of a deposit or an investment. This is quite different from the way a bank would account for a similar type of transaction, because the bank would record most of the amount as an increase in a liability item—deposit received—rather than as a revenue item. The insurer practice of treating the entire up-front payment by the customer as premium may relate to the fact that it could become difficult for insurers to allocate the amounts received precisely between an insurance component and an investment component for the many different types of products offered. In any case, the approach makes it more difficult to compare life insurers’ operations because of the significant difference in the nature of premiums received for protection-type contracts and those received for deferred annuities and other types of investment-type contracts. For this and other reasons, the United States has adopted deposit-type accounting for these products on both GAAP and SAP bases.

3. This is not true for U.S. GAAP for the mortality risk portion of life insurance contracts, except for universal life. SFAS 60, paragraph 4 says, “Premiums are recognized as revenue over the premium-paying periods of the contracts when due from policyholders.” See also SFAS 97, paragraph 16, including footnote 3. Instead of delaying the recognition of premium income for such long-duration policies, SFAS 60 establishes a liability up-front for such future benefits.
Investments are an important source of revenue for all insurers. In fact, the general insurance business is really defined by the interplay of two separate businesses: (1) insurance underwriting, in which premiums are pooled to pay claims and to cover underwriting expenses, and (2) investment business, in which the pooled premiums are invested to generate investment income. The net profit of an insurer thus comprises two components: an underwriting gain (or loss) and investment income.

Life insurance is a bit different than general insurance because of the long-term nature of the contracts. Here, the actuaries determine the premium in such a way that,
when invested according to the underlying actuarial assumptions, it will, on average, be sufficient to pay the benefit under the policy as well as to generate a specified return on equity. Assumptions will be required with regard to future returns on invested assets, company expenses, mortality, lapse rates on the business (that is, the percentage of policies that will not be renewed each year), and other factors. Expected future rates of inflation will directly affect expected returns on invested assets as well as future expense levels, so this variable has to be considered as well. Thus with life insurance, there is a somewhat greater interrelationship between the underwriting and investment components of the business than is the case with general insurance.

Whether the investment income is with respect to general insurance or life insurance, there is nothing particularly complex about the accounting treatment. Similarly, neither life nor general insurers are subject to rules in this area, which differentiates them from other types of companies.

In terms of income-producing investments, income is accrued with respect to interest on bonds, debentures, and other debt instruments, with respect to dividends on shares, and with respect to rental income on property owned. These amounts are added together to produce a figure for total investment revenue.

The situation is more complex when accounting for gains and losses on investments. In many countries (including under GAAP in the United States and Europe), insurers are now required to separate their investment holdings into several categories, based on their investment objectives. The way in which gains and losses within the portfolio are recognized for accounting purposes depends on the investment category of the particular asset. The main categories and requirements for revenue recognition are usually along the following lines (taking the U.S. and Canadian approaches as examples):

- **Financial instruments held for trading**: measured at fair value, with all gains and losses (realized and unrealized) recognized in net income in the period in which they arise
- **Financial instruments held to maturity, including loans and receivables**: measured at amortized cost, with gains and losses recognized in net income as the financial instruments are amortized
- **Financial instruments available for sale**: measured at fair value, with unrealized gains and losses recognized as a direct charge to the equity account of the insurer under the heading “comprehensive income.” Any realized gains or losses, including other than temporary impairments, are recognized in net income.

The approach used for the first category is intended to take account of the fact that when investments are held for the purpose of active trading, any gains or losses generated by the activity represent part of the entity’s income for the period and should be reported as such. For example, if a company purchases 10,000 common shares for its trading account on the stock exchange at $200 per share, the investment initially is
recorded on the books of the company at its book value of $2 million. However, if, at year end, the shares are trading at $250 per share, the company records an unrealized investment gain of $50 per share, the shares are written up on the balance sheet, and the company’s income statement reflects additional income of $500,000. If the shares have declined in value by $500,000, then the company’s stated income is affected negatively by that amount.

Turning to the second category, when specific blocks of financial instruments are matched against certain liabilities and the intention is to hold the instruments until maturity, it is deemed proper to amortize the book value of the investment gradually toward the maturity value, with the annual amortization amount included in the insurer’s income statement. (When financial instruments have been purchased at a premium or a discount, there will be an amount to amortize, but if a financial instrument has been purchased at par and will mature at par, there will be no annual amortization.)

With regard to the third category—available-for-sale instruments—the view is that unrealized gains and losses arising here do not constitute part of the company’s regular business income and so should not pass through the income statement. However, the results of any gains or losses generated within this category do affect the economic value of the company and so are shown as “comprehensive income,” which flows directly to the equity account. Thus, for example, if a company decides to sell a subsidiary company and there is a gain or loss as a result, this would likely be treated as comprehensive income and would not affect the reported earnings for the period because the company is not in the business of selling subsidiary companies. Under U.S. GAAP, the foregoing treatments are a little different, with both unrealized gains on available-for-sale instruments and any gain or loss on the sale of a subsidiary flowing through the income statement.

In some countries, local GAAP has not adopted the foregoing conventions and provides that investments will be left at book value, which will only be adjusted upward or downward if there is what is considered to be a permanent increase or decrease, respectively, in the value of the investment. Statutory accounting in these countries usually follows this approach as well.4

These countries emphasize the cost principle and are of the view that market fluctuations should not affect the income statement of the insurer unless the investment has been sold and the gain or loss actually realized. In order not to lose track of the impact that unrealized losses might have on the financial position of an insurer, supervisory authorities often require as part of SAP that all investments be recorded at the lower of book value or market value. Thus increases in value above book value are considered to be temporary in nature and are not credited to the financial position of the company, but—in order to be conservative—unrealized losses are taken into account in assessing the minimum solvency requirement and other statutory tests.

When investment income or asset values are recorded in the financial statements on a basis other than fair value, the supervisory authority should also obtain informa-

4. U.S. SAP, all non-affiliated common stock and several categories of preferred stock (to the extent it is not debt-like) are carried at market.
tion on a fair value basis. Clearly, in order to assess the true position of the insurer, the supervisory authority will need to know the extent to which book values or other recorded values may differ from fair values.

Investment expenses, arising as investment advisory fees, brokerage fees, salaries of investment personnel within the insurance company, and other similar costs, are treated as expenses of the period.

Exercise

8. An insurer has made a significant equity investment (by buying treasury shares) in a business that is controlled by the company that also controls the insurer. The insurer has reported the investment at book value in accordance with local GAAP rules, which are also accepted by the supervisory authority. What are your comments on this situation?

Accounting for Reinsurance

Reinsurers are in the business of providing insurance to insurance companies—that is, helping to spread and absorb insurance risk from primary insurers. Large professional reinsurers are highly focused on reinsurance activities and tend to have very few dealings with the public at-large. However, many insurance companies that are not professional reinsurers, but operate mainly as primary insurers, also have some inward-flowing reinsurance within their total portfolio of business.

There are a number of basic types of reinsurance transactions, including proportional (sometimes called quota share or pro rata reinsurance), excess of loss, catastrophe, stop loss, and so on. Various types of reinsurance are covered in more detail in the module on ICP 19B. With proportional reinsurance, the reinsurer assumes a pro rata share of the entire risk and is therefore entitled to an equal share of the premium. In this case, when the reinsurer assumes unearned premiums from the primary insurer, that primary insurer will reduce its unearned premium liability by the amount ceded, and the assuming reinsurer will increase its unearned premium liability by the amount assumed. (Alternatively, in some accounting systems, the reinsurance will not affect the unearned premium liability of the primary insurer but will instead result in a ceded unearned premium asset.) In the case of excess-of-loss reinsurance, the primary insurer will pay a premium for coverage, which is an expense that is earned over the coverage period, and the reinsurer will earn that premium in the same way that the primary company will earn a premium received from a policyholder.

The concept of unearned premium is the same whether it is on the books of the primary writer or the reinsurer; in both cases, unearned premium will be calculated ac-
According to the techniques mentioned above. The amount of unearned premium ceded by the primary insurer should correspond exactly to the amount of unearned premium assumed by the reinsurer.\(^5\)

In some cases, the primary insurer will cede incurred claims to a reinsurer. Again the theoretical approach is the same, and so the amount of outstanding claim ceded by the primary insurer should in theory equal the amount of outstanding claim assumed by the reinsurer. However, the amounts may differ due to disputes about the amounts payable, differences of opinion on a claim’s value, and differences in timing regarding the booking of claims.

The situation with reinsurance commissions also corresponds to what occurs at the primary level. Just as the primary company pays a commission to its agents and brokers for producing the business in the first instance, the reinsurer pays a commission to the primary company that is ceding the business. In addition to commissions paid to agents and brokers, the primary insurer will have incurred other acquisition costs such as premium taxes and policy-handling costs. Because the reinsurer does not have to incur most of these costs, it will reimburse the primary company by way of a reinsurance commission for the costs of putting the business on the books.

One key area from a supervisory perspective is accounting for reinsurance commissions, where the challenge is to ensure that the accounting reflects the actual terms of the contract. A common arrangement is for the reinsurer to pay a higher commission for business when the claims ratio is low and a lower commission for business when the claims ratio is higher. This type of provision is usually termed a sliding-scale commission. Sometimes the contract provides for adjustments to be made on a periodic basis (for example, every six months) and sometimes provides for only one adjustment at the end of the contract term, which could be as long as three years. In most cases, the adjustment is retroactive to take account of actual performance, not merely future business. The point to keep in mind is that if the commission rate is at the high end of the scale but the claims ratio is increasing (or if underprovisioning is making the claims ratio appear to be low, whereas it is much higher than is being reported), then the insurer may be recording a high rate of commission as income, but this is going to have to be adjusted downward later on, quite possibly on a retroactive basis. The impact of an adjustment can be very significant for the financial position of the insurer. Sometimes, because of a lack of precision in the reinsurance accounting area, the insurer and reinsurer may proceed for a considerable period of time without realizing that adjustments are required under the contract. In some cases, years have elapsed without anyone noticing that the quality of the business has deteriorated substantially since the contract came into force, with the result that there is suddenly a huge negative impact on the company’s equity base, with a corresponding impact on the company’s solvency position.

Because reinsurers are often reporting on the same “as at” date as their ceding company clients (for example, as at December 31), their reported liabilities often include a

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\(^5\) This will generally be true, unless the booked premium reflects an estimate of audit premium. If so, it is acceptable for the two to have different estimates of audit premium.
considerable degree of estimation, much greater than for a primary writer. Timing lags in reporting from the client insurance companies often leave reinsurers with little option but to estimate their assumed liabilities at the end of the period. These estimates are in the nature of incurred but not reported amounts, and, in addition to communicating with the client insurance companies to obtain information on business trends, the reinsurers will use various statistical and other methodologies to make their own accounting estimates. These same timing lags also reflect the reporting of revenue. In some cases, the premium revenue that would normally be reported in the period but for the reporting lag will be incorporated via an estimate, including an estimate of the associated claims. In other cases, neither the premium nor the corresponding claims for this lagged business will be anticipated in the financials.

Companies’ reinsurance accounting systems should also include an allowance for uncollectible reinsurance if there are reasonable expectations that certain balances ultimately will not be paid. This should be a rare situation, but a company’s reinsurance accounting procedures should nevertheless anticipate the possibility. Some examples of reinsurance accounting transactions are presented in appendix IV.

The interest of reinsurers in their client companies parallels to a considerable extent the interest of the supervisory authority. Both parties want to make sure that there is accurate provisioning for and reporting of claim liabilities, that underwriting is carefully controlled, and that both management and financial reporting is accurate and timely. Reinsurers often reinforce the requirements of supervisors for these reasons. Sometimes insurers complain that they do not have certain information requested by the supervisory authority, especially in new markets where the authority is just beginning to impose informational filing requirements on the insurance industry. If the insurer has appropriate reinsurance arrangements with reputable reinsurance companies, the supervisor can be fairly certain that, if the information is of a type that would be required by the reinsurers, it must almost certainly be available because the reinsurers would not assume the business without having access to the information in question.
The income statement: Expense

An insurance company’s expenses include claims and the costs involved in their settlement, commissions to agents and brokers, and operating expenses. Accounting considerations related to claims and commissions are discussed below, while general operating expenses are accounted for by insurers much as they would be by other types of businesses. The increase in actuarial liabilities, which are discussed in the section on the balance sheet, is often a significant expense item in the income statement of a life insurer.

Accounting for claims

Although accounting for claims can present difficulties in specific situations, from a supervisory perspective the basic point to remember is that every valid claim is an expense and results in a liability for the insurer until it is discharged by payment. In keeping with the matching principle, in most countries the full amount of the claim is recorded in the period in which the claim is incurred. That is to say, even if cash payments will, by virtue of the nature of the claim, have to be made over future periods, the full amount of the claim should be recognized as an expense in the period in which it is incurred. (In some countries, the time value of money is taken into account, and the claim expense for the period is the present value of the expected future payments required to settle the claim.)
However, at least in general insurance, claims represent the most difficult aspect of all when attempting to assess the profitability of the insurer. So while the concept is simple, the practice is far less straightforward. Why? It is generally not because of accounting issues. It is because in the case of claims prior to settlement, there is no way of knowing with certainty what amount should actually be recorded as a claims expense in the accounts of the company.

Take, for example, the case of an automobile insurer. A very substantial automobile accident has just been reported to the insurance company. One of the company’s clients has been in a collision involving several other vehicles, with the smashed cars then proceeding out of control into a pedestrian area. A number of pedestrians as well as several passengers in the cars have been critically injured, and there has been other property damage as well. The amount that the insurer will have to pay to settle the claim will depend on a number of factors, none of which is simple to estimate. In addition to the value of damaged property, the extent to which the company’s policyholder is liable for the accident may be difficult to determine, even after extended investigations, possibly including court action. As well, the injuries are serious and will probably give rise to extended medical treatments over a long period of time, so, again, quantifying these amounts is a major challenge.

How can the insurer make an accurate estimate of the claims expense that it should record for this event and the amount that it should provision as part of its liability for outstanding claims? After studying the details of the accident, the insurer may feel that the accident was completely attributable to negligence by one of the other drivers and that this other party’s insurer will be entirely responsible. Or, alternatively, the insurer might conclude that a very large provision will have to be made for the claim in question. In this example, the insurer might record as a claims expense for the period any amount ranging from zero to a very significant sum. Assuming that this process, albeit in less dramatic fashion, continues from claim to claim, how can the supervisor assess the adequacy of the aggregate amount that the company has on its balance sheet with respect to the liability for outstanding claims?

Fortunately, there are techniques that insurance supervisors and others can use to monitor the accuracy with which insurers are estimating their claims expense for the period, and these are referred to again in the section on claim liability.

One important matter for the supervisory authority to look into, either through the independent auditor or directly, has to do with the internal controls governing the company’s information technology system in the area of claim provisioning. In this regard, it is important to ensure that whenever a claim provision is adjusted upward or downward, there will be safeguards with respect to who is authorized to make the change as well as suitable documentation in support of the reasons for making the change.

In the case of life insurance, the situation is more straightforward because there is usually little doubt about whether a person has died or not. Similarly, the amount of the payment is generally a fixed condition of the policy terms, so the problem of claims estimation is not a significant issue.
In the case of disability coverage and other types of policies that provide guaranteed future payments, the claims expense for the period will be equal to the present value of the new claims incurred for the period, taking account of estimated future interest rates and payments over the expected periods of disability. Again there is significant potential for inaccurate estimation. However, unlike the situation for general insurance, in this case the amount of the monthly payment is usually fixed by the contract. As well, the estimates of the required provisions for disability and similar types of policies are somewhat more amenable to mathematical modeling than is the case with outstanding claim provisions in general insurance. Nevertheless, many companies have gotten into financial trouble because of inadequate estimates of disability provisions.

Another component of claim expense accounting has to do with recording claims that have been incurred but not reported, usually referred to as IBNR claims. IBNR claims are recorded in the same way as reported claims in each period.

Finally, the costs of adjusting and settling claims, including legal costs directly related to claims, should also be included in the provisions for claims and treated as expense in the period: these are expenses that, like the claim itself, are directly attributable to the occurrence of insured events (or at least events that the claimant believes should be insured).

Exercise

10. In your jurisdiction, do you have specific procedures or requirements for ensuring that IBNR amounts are included in the claims expenses for the period? Is this something that you think could be important in your jurisdiction? Why or why not?

Agent and Broker Commissions

In general, insurance commissions are paid to agents and brokers based on the type of business obtained. General insurance contracts are normally for a one-year term, and a commission is paid on inception and with each renewal, usually at the same percentage level.

For these companies, just as the premiums for the business are earned over the term of the contract, the commissions are also expensed over the same period (at least under most GAAP accounting regimes). Three main factors are used to calculate the amount of deferred commission. The first is the commission rate specified in the contract with the intermediary. Commissions paid divided by premiums written for a particular type of business should equal the commission rate. The second factor is the period of time for which the premium rate calculation will be applicable. The third factor is the “recoy-
erability” of the expense. (In addition to commissions, some other expenses related to the acquisition of business may be deferred under most GAAP systems.)

The key element that determines the level of recoverability is the expected claims ratio for the business. To make a simple example, if a general insurer has an incurred claims ratio of 75 percent and has total commissions equal to 30 percent of premiums earned, then in most cases the maximum amount of commission that can be deferred is equal to 25 percent of premium (assuming that investment income cannot be taken into account), the reason being that 5 percent of the commission is deemed not to be recoverable. In practice, the situation is more complex than this because in most cases other potentially deferrable expenses also have to be taken into consideration in assessing recoverability.

In life insurance, the situation is somewhat different because the first-year commission is usually quite significant, often equal to or greater than the first year premium, but the renewal commissions are much smaller, sometimes disappearing altogether after the policy has been in force for a few years. Commissions in life insurance are often expensed in the year in which they are incurred, although in some countries the technical provisions are permitted to include certain adjustments that do, in effect, provide for some deferral of commission and other expenses that are variable with the volume of new business and recoverable. In the United States, GAAP provides specifically for deferral of recoverable acquisition expenses and their amortization over time.

**Exercise**

**11.** It might appear that life insurers pay an inordinately high rate of commission for new business. Over the long term, this practice might appear to place life insurers at an economic disadvantage compared to other types of financial institutions that do not reward their sales forces so aggressively. Discuss these statements. Do you agree or disagree? Why do you suppose that this practice has continued successfully for so long?

**The income statement: Format**

There are two basic approaches to the format of the income statement.

The first approach, which is used by general insurance companies in many countries, splits the income statement into two major sections: the underwriting account and the investment account. Under this approach, revenue and expense items are allocated between the two major aspects of the company’s operations.

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6. U.S. GAAP and SAP allow investment income to be reflected in this calculation.
The underwriting account splits revenue and expenses, with a resulting underwriting gain or loss. Revenue includes all premiums written, changes in unearned premiums, and any service charges related to the insurance policies. Expenses comprise claims incurred, including adjustment expenses related thereto, acquisition expenses, and general expenses related to the insurance activities. Any adjustments for premium deficiencies may also be included in expenses. The net result is an underwriting gain or loss for the period.

The second portion of the income statement is the investment account. All investment revenue is included as well as all expenses related to investment operations, including a portion of general expenses. Investment revenue includes interest, dividend, and similar income as well as gains and losses on investments. A net investment gain or loss is reported.

Other items of income such as foreign exchange gains and losses and income taxes are shown in a third section of the income statement.

The financial statements in appendix II are formatted in this way.

Life insurance companies tend to show all the revenue, both insurance and investment related, separately in the same revenue section. Expenses are also combined in the same section. These income statements resemble those of other types of companies, with a single pretax income amount rather than separate gains and losses for the different aspects of the companies’ operations.

The balance sheet: Liabilities

The quantification and assessment of insurance liabilities are critical areas of interest for supervisors and are dealt with in detail in the module on ICP 20 dealing with liabilities. In addition, the IAIS discussion paper “Quantifying and Assessing Insurance Liabilities” provides an excellent review of this topic (IAIS 2003). The material presented here endeavors to consider the subject in summary form and from the specific perspective of insurance accounting.

Unearned premiums

For general insurance companies, the largest components on the liability side of the balance sheet are the technical provisions, comprising the provision for unearned premiums and the provision for outstanding claims. (In North America, these items are often referred to as the unearned premium reserve and the outstanding claim reserve. Despite this common terminology, these amounts are not reserves at all, at least as used outside the industry. Reserves are amounts that have been earmarked for contingencies, but they are not owed to anyone and are not liabilities of the company. Unearned premiums and outstanding claims are true liabilities.)
Unearned premiums are, of course, the mirror image of earned premiums. Thus if we consider a $1,000 premium for a particular policy and follow the earning mechanism, we find that if $200 is earned during the period, then at the end of the period the unearned premium liability for that policy is $800.

As with the earned premium, we can consider the unearned premium from the perspective that the policyholder has paid in advance for a service to be provided by the insurer: protection against loss according to the terms of the policy. With the policy mentioned above, the premium is being earned at a rate of $83.33 per month ($1,000/12). If the policyholder were to cancel the policy after, say, three months, then the company should refund the premium for the nine months of insurance coverage that has not been used, or $750. So the unearned premium on the policy after three months is $750. This does not necessarily mean that the policyholder would receive $750 on cancellation because the insurer often charges a cancellation fee, provided for as part of the contract.

We can also think of the provision for unearned premium in total as representing the insurer’s liability with respect to the in-force policies. The unearned premium is the amount that will become available to the insurer as it is earned and that should be sufficient (if the policies are properly priced) to pay the claims under the policies, cover the acquisition costs, and generate a profit to the insurer. So in a way, unearned premium liabilities are transformed into claim liabilities over time, which are gradually extinguished as the premiums are earned.

Calculation of the unearned premium liability is usually quite straightforward, obtained by accumulating the unearned portion of each in-force policy of the company. Today in virtually all countries, insurers tend to be highly computerized, and software programs are designed to calculate the amount of premium earned on each policy and to accumulate the unearned portions. Quite often, premiums earned and unearned are calculated on a daily basis over the term of the policy.

Prior to the widespread use of computers, it would have been too cumbersome and time-consuming to try to calculate separately daily earned and unearned amounts for each policy. Therefore, as a method of estimating and simplifying the calculation for annual policies, it was assumed that all the premiums written during a month were actually written at the middle of that period. The “single premium” of the most recent month would then be 1/24th earned by the end of the accounting period, with the remaining amount of 23/24ths earned in future months. Still unearned from the previous month would be 21/24ths. The same applies to the next previous month and so on. This is known as “the 24ths method” for calculating earned and unearned premiums. Generally speaking, the 24ths method produces reasonably accurate results for annual policies, although if the business is expanding or contracting rapidly, the results will be less accurate than for a more stable book of business. The 24ths methodology can, of course, be built into an information technology system and calculated electronically, and some insurers use this approach.
Some specialist insurers (such as those covering large industrial risks) may only have a few very large policies. If the policies all expire at the end of the accounting period, with subsequent renewals, the unearned premium will be zero at the end of each period. In some countries, the required solvency margin and some supervisory tests may have the unearned premium as one component. If a company is always reporting zero unearned premium because of the timing of reporting, the supervisory authority may want to use an average unearned premium amount for test purposes because that better represents the company’s ongoing liability position. Likewise, a few insurers (mostly automobile insurers) issue monthly policies to all policyholders. Again, at the end of any particular month, the unearned premium amount may not represent the company’s average unearned premium liability, and some adjustment may be called for.

For life insurers, unearned portions of premiums are included as part of the actuarial provisions.

**Provision for unexpired risk**

In the foregoing section, we indicated that, in total, the unearned premium liability should be sufficient to discharge the future expected claims under the policies, amortize the costs of acquisition, and provide the company with a profit. In other words, the unearned premium in respect of a block of policies represents the total liability from claims as well as other expenses that will arise from those policies (along with a provision for profit).

However, it is not difficult to imagine a situation where, for example, a company has a claims ratio of 80 percent (that is, 80 cents of each dollar of premium is required to pay claims on these policies) and an expense ratio of 40 percent. In such circumstances, it is clear that the company’s liability with respect to the business is going to be greater than the unearned premium because the premium is inadequate relative to the company’s underwriting experience and cost structure.

Accordingly, in conjunction with the unearned premium calculation, good practice calls for an additional calculation to be made with regard to the adequacy of premiums. If policies are being underpriced, there may be an additional liability that should be shown on the balance sheet, and this liability is called the provision for unexpired risk.

The provision for unexpired risk is sometimes estimated using simple ratios or more sophisticated actuarial techniques that take account of the time value of money and the expected future distribution of claims and expenses.
Accounting for outstanding claims presents no major problems. The amount of the claim is an expense of the company in the period in which it is incurred. The estimated claim amount (adjusted for any change in the estimate) remains on the balance sheet as a liability until it is discharged, at which time the amount of cash is reduced and the liability is extinguished. A claim may also involve the company’s reinsurance accounting, depending on the nature of the claim and the reinsurance arrangements in place. Specific examples of accounting for claims are provided in appendix IV.

Outstanding claims represent a major area of interest for supervisors, not necessarily because of accounting issues but more because of the difficulty of determining whether the amounts established by the insurer are appropriate. Underprovisioning for claim liabilities is the most common area of concern for supervisors because the practice can make an unhealthy insurer appear to be much more financially solvent than is actually the case. In considering the sufficiency of claim provisions, the supervisor will want not only to focus on the claim estimates per se (usually known as the case provisions, being the amounts established in the files for each known claim), but also to ensure that all components of the claim provision have been taken into account when establishing the overall liability. It is also possible for there to be a supervisory concern with regard to “oversufficiency” of claim liabilities, and this arises from two perspectives: first, it is in everyone’s interests to have accurate reporting, and second, overstating provisions understates income and so defers the payment of income taxes that should legitimately be paid in the period.

Adequacy of the Liability for Outstanding Claims

The significance of this issue is immediately evident when we remember that, for a typical general insurer, the amount of outstanding claims might be more than two times the equity base of the company. In such a case, if the outstanding claims are understated by 20 percent, the equity of the company is overstated by 40 percent! Given the importance

Exercise

12. Consider the following statement: In some countries the underwriting results, especially in the motor vehicle line of business, have historically been very poor. In these countries, if there were a properly calculated provision for unexpired risk, many insurers would suddenly appear to be bankrupt. If you agree, do you think it would be a good practice to establish such a provision? Why do you think it has not been done?
of the subject for supervisory risk assessment, detailed discussion also arises in modules ICP 12B on ratio analysis for non-life insurers and ICP 20 on liabilities.

The most frequent way of monitoring the adequacy of claims provisioning practices at a company is by means of so-called claims triangles (the reason for the name becomes obvious when one examines the pattern of entries as the table is built up over time), where claims are classified by line of business and year of occurrence and then monitored over time. With the claims triangle, the supervisory authority (and company management) can compare the provision that was set up at the end of a period with the amounts that were paid out in future years in respect of those claims. So, for example, a company may estimate that at the end of year 2001, it has outstanding claim liabilities of $25 million in respect of claims incurred during 2001. If during 2002 it has to pay out $15 million on those particular claims, and at the end of 2002 it estimates that it still has $12 million of liability in respect of the 2001 year-of-occurrence claims, then, based on the most up-to-date information, the original provision of $25 million was deficient by $2 million. If the original estimate had been correct, payments of $15 million would leave an outstanding liability of $10 million. Of course, there is still a considerable amount of claim liability to be run off, and it is only when all the 2001 year-of-occurrence claims have been paid that we know with certainty the extent to which the original liability estimate of $25 million was excessive or deficient. (The excess or deficiency that emerges in each year as we compare the original estimate with the actual payments plus the remaining provision is called the claims development for the year.) The tabular format in which this information is recorded and filed with the supervisory authority is called the claims triangle (or claims runoff exhibit). A simplified example of a claims triangle is set out in figure 1.

**Figure 1. Simplified Example of a Claims Triangle**

<table>
<thead>
<tr>
<th>Year</th>
<th>2002 and prior years</th>
<th>2003 and prior years</th>
<th>2004 and prior years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>UCAE, end of year</td>
<td>56,289</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IBNR, end of year</td>
<td>23,355</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>Paid during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>UCAE, end of year</td>
<td>34,875</td>
<td>65,815</td>
</tr>
<tr>
<td></td>
<td>IBNR, end of year</td>
<td>10,406</td>
<td>15,492</td>
</tr>
<tr>
<td></td>
<td>Excess or deficiency</td>
<td>–5,377</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% excess or deficiency</td>
<td>–6.8</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Paid during the year</td>
<td>13,954</td>
<td>27,561</td>
</tr>
<tr>
<td>2004</td>
<td>UCAE, end of year</td>
<td>28,093</td>
<td>36,265</td>
</tr>
<tr>
<td></td>
<td>IBNR, end of year</td>
<td>7,431</td>
<td>10,236</td>
</tr>
<tr>
<td></td>
<td>Excess or deficiency</td>
<td>–4,709</td>
<td>–415</td>
</tr>
<tr>
<td></td>
<td>% excess or deficiency</td>
<td>–5.9</td>
<td>–0.6</td>
</tr>
</tbody>
</table>

UCAE = Unpaid claims and adjustment expenses
IBNR = Incurred but not reported claims
After one year of development, the 2002 and prior-year claims are shown as 6.8 percent deficient. In other words, based on one year's runoff data, the original unpaid claims and adjustment expenses (UCAE) and IBNR should have been, in total, 6.8 percent higher than was actually set up as a liability. At the end of two years, the development shows a deficiency of 5.9 percent, more or less confirming the range of 6 percent that showed up after one year. For 2003 and prior years, the situation appears to have improved somewhat, with one-year development of only 0.6 percent. However, the cautious observer would likely want to see another year of data before strongly concluding that the underprovisioning problem has been corrected.

In practice, the runoff data are often for five years, and, in addition to “year and prior” columns, there would be separate columns for year 2002 by itself, 2003 by itself, and so on. In general, the runoff period should be long enough so that it covers the period of material claim liability estimation risk. As such, the length of the runoff period should probably be set based on the underlying claim reporting and settlement lags existing in the jurisdiction being reported on, for the product being reported on. Claims triangles can, of course, also be prepared by line of business, such as liability, where long-tail claims give rise to the greatest challenges in estimation.

Because it is not practical to go back and restate the financial statements for all of the previous years that might be affected, it is normal practice to charge the excesses or deficiencies of previous years—that is, the developments from prior years that emerge in the current year—to the current year’s underwriting account. Thus if in Year N the claims triangle shows that the shortfall in the provision emerging in Year N with respect to Year N − 1 is $2 million and with respect to Year N − 2 is $1 million, then the current underwriting result should include these newly apparent liabilities.

Exercise

13. In each of the past five years, an insurer has shown first-year claim development of 43 percent, 39 percent, 26 percent, 20 percent, and 19 percent (starting five years ago, development figures as a percentage of the original claim provision). The insurer insists that the company’s provisioning technique is obviously improving and that any concerns by the supervisory authority are unfounded. Do you agree? If not, why not?

Incurred but not reported claims, adjustment expenses

Estimation of claim liabilities is made even more complex because, in addition to claims that have been reported and where ultimate liability must be estimated, there will also,

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7. In the United States, the normal runoff period is 10 years, plus an “all prior” category.
at any point in time, be claims that have been incurred but not yet reported to the insurer.

IBNR claims can be material, depending on the line of business, with long-tail lines such as liability giving rise to the most significant challenges. In the case of property damage losses, claims are likely to be reported at the time of the loss or shortly thereafter, and estimates for repair or replacement should not vary widely. By comparison, however, if numerous large, underground industrial containers are leaking toxic chemicals into the groundwater, the policyholder may have no idea that he has a claim, and so reporting may be long delayed.

Geographic distance can also lead to significant delays in reporting. For example, if a domestic insurer has a small participation in an international pooling agreement (small in absolute terms as measured by the pool managers, but perhaps not small relative to the resources of the domestic insurer), it can sometimes take years for losses to work their way through complex international risk-sharing and -reporting systems and be made known to the insurer.

Every insurer should have a provision for IBNR claims as part of its overall claim liability. Even in the case of short-tail business such as fire and general property, there will be claims that have been incurred but not reported (in this case, mostly from claims incurred shortly before the end of the reporting period). From a supervisory perspective, the focus is on the credibility of the statistics used to estimate the IBNR figures. In each period, the insurer should keep track of the claims that are reported in that period but that were actually incurred in earlier periods—that is, reported in this period but incurred one period ago, reported in this period but incurred two periods ago, and so on. These amounts can be compared on an annual basis with premiums written by line of business and other financial indicators, and the resulting ratios can be applied to the current year to estimate the amount of IBNR that should be established for the current period. Whatever specific practice is followed, the basic idea is to use historical results to estimate the amount of claims that will only be reported to the insurer in future periods, although they have actually been incurred in the current period. It is sometimes the practice, particularly for long-tail books of business, to estimate expected development on outstanding claims and to include the expected development as part of IBNR.

One other component of the claim provision that needs to be estimated is the cost of adjusting the claims, both internal and external. Internal adjustment expenses would normally include salaries of internal claims adjusters and related expenses. External adjustment expenses would include the cost of independent (that is, external) claims-adjusting services as well as legal fees expected to be generated in connection with settlement of incurred claims. The claims provision should be equal to the full cost of settlement, and since internal and external adjusting costs are a necessary part of claim settlement, they should be built into the provision. The amount of the adjustment cost component of claim provisions can, like the IBNR, be estimated for each company based on its historical claims-adjusting costs. Companies usually make this estimate on a bulk basis for lines of business rather than for individual claims.
TIME VALUE OF MONEY: GENERAL INSURANCE CLAIMS

Because general insurance claim settlements are normally relatively short term in nature, the time value of money is typically not taken into account when establishing provisions for outstanding claims. However, some countries are now requiring general insurers to establish their claim liabilities on a basis that recognizes the fact that settlements will actually be spread over future periods.

The view in some jurisdictions is that, if one can be relatively certain that, say, 50 percent of the total year-end claim liability will be discharged in the upcoming year, 30 percent in the following year, and the final 20 percent in the third year, this should be recognized by showing the total present value of the amounts rather than the absolute values of the amounts expected to be paid out. If the claim liability amounts to be discharged over the next three years are actually estimated to be $50 million, $30 million, and $20 million, respectively, and if the rate of interest is 6 percent (and assuming for simplicity that the full amount of each year’s claims are paid mid-year), we can determine that the present values of these amounts are, respectively, $48.6 million, $27.5 million, and $17.3 million. Under these circumstances and this system of reporting, an insurer would show a total claim liability of $93.4 million as opposed to $100 million. If the 6 percent interest rate is a reasonably accurate estimate of what the insurer will be able to earn on the investments offsetting its technical provisions, then it will only require $93.4 million to meet its year-end claim obligations to policyholders.

When claim liabilities are discounted to take account of the time value of money, an explicit provision for adverse deviations may be shown on the balance sheet. This amount may be established to take account of the fact that the estimates underlying the discounted claim liability can be wrong—for example, due to higher than anticipated claim payments or unfavorable investment experience—hence an additional amount is needed to reduce the risk that the provision will be inadequate. This provision can be formula based or may be an additional estimate itself based on some criteria (such as the percentile of a probabilistic distribution of potential claim payouts).

Although some countries take account of the time value of money in establishing general insurance claim liabilities, the practice is somewhat controversial because some see it as additional complexity that will not be justified by improved accuracy of reporting and may lead to a further reduction in recorded claim liabilities that are frequently understated in practice.

SALVAGE AND SUBROGATION

Another item specific to general insurance companies is what is known as salvage and subrogation. When an insurance claim is settled, the company frequently has a right to either salvage, subrogation, or both. Salvage is what remains of whatever property may have been damaged when the event giving rise to the claim occurred. For example, in
the event of a boat sinking, the claimant would be compensated for the cost of the lost boat, but the insurance company would then be entitled to try and retrieve the boat and realize some value from the boat and its contents. Subrogation arises when the insurance company has a claim against a third party, such as in an automobile accident involving two drivers with different insurance companies. When a company pays the claim for its own customer, it may have a compensating claim against the insurance company of the second driver.

In determining the amount of the unpaid claim liability, supervisory authorities in many countries tend not to allow for a reduction of the unpaid claim by the amount of anticipated salvage and subrogation. Rather, these estimated amounts are shown as assets on the balance sheet and not allowed for solvency purposes. In other countries (the United States being an example), the claim liabilities are shown net of these estimated recoveries.

**Actuarial liabilities**

Actuarial liabilities, or technical provisions as they are sometimes called, take account of the long-term nature of life insurance contracts. In accounting for general insurance liabilities, the time value of money is ignored (in most countries at least) because the contracts seldom exceed one year in length and liabilities are usually discharged over a reasonably short time frame.

This simplification cannot be supported in the case of life insurance contracts. Consider, for example, the case where a new policy is issued to a 30-year-old, providing that the policy will pay $100,000 to the beneficiary if the policyholder dies at age 65 or earlier. If the policyholder in question happens to die at age 65 exactly, then in order for the insurer to make the required payment, it will certainly not have had to put aside a sum of $100,000 at the time the policy was issued. In fact, if interest rates are 5 percent a year over the entire term of the policy, it only requires the investment of a single amount of $18,129 to accumulate to $100,000 at 5 percent a year over 35 years (the time value of money is also addressed in module ICP 20 regarding liabilities).

Continuing the example, we know that rather than there being a certainty that the policyholder will die at age 65, we somehow have to take account of the fact that there is a specific probability that the policyholder will die during any given period. Clearly, the further into the future that death actually occurs, the smaller is the present value of the amount that has to be set aside to pay the claim. We also have to take account of the fact that, in addition to the claim payment, other expenses will be associated with maintaining the policy in force, and these also should be reflected appropriately in the liability amount established (just as is the case with claims-adjustment expenses for general claims).

As it turns out, the theoretically proper amount of the actuarial provision to be established is as follows:
The present value of future claims and expenses under all policies of the company minus the present value of future premiums.

While this is not a difficult proposition to articulate, the determination of an actual amount for the technical provision requires the actuary to be familiar with mathematical and financial principles involving compound interest, probability theory, and so on. The actuary will have to postulate a number of important underlying assumptions in order to carry out the required calculations, such as rates of mortality. Large insurers may even use their own mortality experience if it is statistically credible. If such data are not available, then the actuary may use mortality tables based on a population having mortality experience that can be expected to be representative of the population from which the insurer is drawing its policyholders. Key assumptions will also be made with regard to future rates of return that the insurer will be able to earn on its investment portfolio, future expense levels for the insurer, and lapse rates (that is, the percent of premiums in force that policyholders will allow to lapse or that will be surrendered in any given year). In making assumptions about future rates of return and expenses, the actuary will have to consider expected future rates of inflation.

While the actuarial provision will be shown as a single number in the accounts, it should be borne in mind that, due to the significant degree of estimation inherent in the underlying assumptions, the actuarial provision can be considered to fall within a range of values. Everything else being equal,

- Higher interest rate assumptions give rise to lower provision levels, and lower interest rate assumptions give rise to higher provision levels.
- Lower rates of mortality will generally result in lower provision levels for life insurance and higher provision levels for annuities.

If the supervisory authority has sufficient resources to employ its own group of qualified actuaries, it will be in a position to review the actuarial reports that should normally be required from the actuaries that have established the company provisions. These reports should set out their underlying assumptions, the bases on which the calculations have been made, and the rationale for the particular combination of assumptions and approaches that have been selected by the actuary. Using mortality tables from a developed country in a less developed country with higher rates of mortality will result in an understatement of technical provisions for life insurance in the less developed country.

Even if the supervisor does not have its own actuarial resources (and does not have a budget to retain outside actuarial advisors), a worthwhile review can still take place. The key is to consider the reasonableness of the underlying assumptions and to compare them with historical and current realities. For example, if, with respect to a certain group of policies the actuary is assuming that next year's interest rate on the
investments matched against these policies will be 6 percent, that the following year the rate will be 7 percent, and that all years thereafter will be 8 percent, when the current rate of interest is only 4 percent, and historically the country in question has seldom seen primary interest rates in excess of 6 percent, the supervisor would want to question the actuary about the appropriateness of the interest rate assumption. Similarly, if the actuary is assuming an expense level that is lower than the company has historically achieved, one would want to know the rationale for that assumption.

Exercise

14. Many emerging-market countries either do not have any fully trained actuaries or have a considerable shortage of actuarial professionals. These countries usually have a preponderance of general insurance compared to life insurance business. To what extent do you think the former gives rise to the latter—that is, is there little life insurance because of a lack of actuaries? Or are there few actuaries because there is not much life insurance business? Are there other important reasons for the lack of life insurance business?

The balance sheet: Assets

Usually, most of the assets on the balance sheet of an insurance company are its investments, including those supporting liabilities to policyholders and those made using surplus funds. The nature of the insurance business, where commissions and other expenses may be incurred in order to produce future premium income, together with the matching principle, may result in the recognition of deferred expenses as an asset.

Investments

The balance sheet treatment of normal, arm’s-length investments of an insurance company is incorporated in the discussion of accounting for investment income. Investments in subsidiaries, affiliates, and other related parties usually are shown as a separate balance sheet category, apart from normal arm’s-length investments. From a supervisory perspective, this is quite important because, when insurance company transactions involve related parties, there is an absence of market discipline, possibly signaling that funds are being employed in areas that will be of benefit to the related parties but not to policyholders.
Deferred expenses

The treatment of deferred expenses is probably the area that most brings into focus the difference between GAAP and SAP.

Under GAAP, when an expense has been incurred but is expected to give rise to future revenue and, as a result, to be recoverable, it has historically been treated as an asset and shown on the balance sheet. Something owned by the company that is not expected to give rise to future revenue (even by means of resale) would normally be written down to zero value. Therefore, if, for example, a company incurs certain expenses in setting up a project that is anticipated to generate revenue over the coming five years, then under GAAP the setup expenses might be treated as an asset (that is, capitalized) and amortized over the five-year period. So the expense would initially be shown as an asset, but then it would be written off over the five-year term of the project, in this way matching the expense with the revenue. If, after a period of three years, it transpires that the project is no longer profitable and so is discontinued, then the unamortized expense remaining on the balance sheet as an asset would immediately be written off.

Most expenses are incurred in the expectation that they ultimately will lead to the production of revenue, so the GAAP treatment potentially opens the door to some aggressive practices. There are examples where corporations have deferred virtually all their expenses and at the same time have been most reluctant to concede that in many cases the expense has not led or will not lead to the production of income. The result can be significant overstatement of reported income, with corresponding overstatement of the company’s equity base.

In the world of insurance, it is the area of acquisition expenses that typically gives rise to a potential for deferrals. When commissions are paid to insurance intermediaries (agents and brokers) and other acquisition expenses are incurred (for example, life underwriting, medical exams, cost of printing policies), the expenses are expected to be recoverable from future premium income, unless the line of business involved is not profitable (in which case, the criterion for GAAP deferral would not be met).

However, from an insurance supervisory perspective, the cash has gone out of the company to pay the commissions and if (keeping in mind the liquidation principle) the insurance company has to be closed down to protect the position of policyholders, the funds (or most of them) would not come back to the company and would not be available to honor policyholder obligations. Therefore, under statutory accounting principles, the normal treatment is to write off all expenses as incurred.

This practice, while conservative, can have the somewhat unfortunate result of making it appear that an insurer is unprofitable because it is expanding its business and incurring costs in the process. The effect is particularly pronounced with life insurance because commission levels on new business are quite significant in relation to the first-year premium. If the company is expanding rapidly, first-year premium will be a significant percentage of total premium (that is, including renewals), and the effect often will be to show that the company is unprofitable. In reality, life insurance is a long-term
business, and once the contracts have been put on the books, future commissions and policy maintenance expenses tend to be relatively low. Therefore, in a classic demonstration of the reasons underlying the GAAP treatment of these expenses, a growing, healthy life insurer may appear, under SAP, to be significantly unprofitable. One can imagine the impact on the insurer’s ability to raise funds in the capital markets if it has to use SAP reporting, especially when competitors are reporting on a GAAP basis and are amortizing the same types of expenses over a significant future term—and reporting current profits as a consequence. Conversely, with the most significant expenses (that is, acquisition expenses) having been written off at the outset, a company that is beginning to stagnate due to a lack of new sales, could appear to be quite profitable because renewal business constitutes the bulk of revenue. A revenue stream with minimal expenses is bound to appear to be profitable.

The third scenario in table 1 deals with this problem in a way that helps to resolve the above difficulty. In this situation, the insurer reports on a GAAP basis, but the supervisory authority, prior to applying statutory tests of minimum required solvency levels and so on, adjusts the GAAP results by setting up a special notional reserve to offset any deferred acquisition expenses that are in excess of levels permitted under the local statutory requirements. The total amount of these special reserves, and in fact any other adjustments that the supervisory authority believes should be made with regard to the GAAP financial statements to protect policyholders, is accumulated to one net figure. This supervisory reserve is shown as an appropriation of surplus in the GAAP financial statements. All statutory tests and ratios that involve the company’s capital and surplus are then applied by the supervisory authority to the GAAP reported capital and surplus, less the supervisory reserve, with the result that the authority is using for statutory purposes the same capital and surplus amount as would have been used if statutory accounting principles had actually been followed. In this way, the conservative approaches of the supervisory authority do not affect either the insurer’s reported income or the total GAAP equity figure. The compromise does, however, permit the supervisory authority to apply all statutory ratios and tests to a conservatively developed figure for the company’s equity base. In addition, it permits the reader of the GAAP financial statements to see, by virtue of the supervisory reserve, the total impact of all the adjustments made by the supervisory authority. The amount of the company’s equity base that is not held as a supervisory reserve is termed unappropriated surplus because, unlike the supervisory reserve, it is not appropriated by the authority to cover certain differences between GAAP and supervisory treatments.
Exercise

15. Suppose two insurance companies are reporting on a GAAP basis as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Insurance company A</th>
<th>Insurance company B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>10,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Liabilities</td>
<td>6,000,000</td>
<td>6,000,000</td>
</tr>
<tr>
<td>Capital</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Surplus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory reserve</td>
<td>500,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Unappropriate surplus</td>
<td>2,500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Total capital and surplus</td>
<td>3,000,000</td>
<td>3,000,000</td>
</tr>
</tbody>
</table>

If you were a potential policyholder reviewing the companies’ financial statements with a view to selecting an insurer, which company would you be inclined to select? What are your reasons?

Consolidated financial statements

Traditional supervision of insurance companies evolved in an environment where insurers tended to be stand-alone entities. The normal regulatory approach was to restrict supervision to the insurance company itself.

Today, however, corporate structures are becoming quite complex, with insurance companies sometimes being members of corporate groups that include other financial services companies (such as banks and mutual funds) as well as some nonfinancial corporations that could be involved in virtually any type of business activity. The expansion of activities adds a degree of organizational complexity to the regulated entity that can confound the capacity of supervisory authorities to assess the true risk profile of an insurance company. This situation has necessitated a reassessment of traditional supervisory processes to ensure that a supervisor can reasonably identify and address the additional risks created by membership in these groups.

Practical ways of dealing with these more complex ownership structures are being developed in an effort to try to ensure that these entities are capable of being supervised. These methodologies, described as consolidated supervision, concentrate on a centralized approach to analyzing the organizations involved. The goal is to evaluate the risks to the supervised entity, including risks that arise as a result of interaction with affiliated corporations, dependency on affiliated corporations, and reputational risk shared with affiliated corporations, among others.

One important tool for assisting supervisors with the challenges of consolidated supervision is to obtain access to consolidated financial statements. Consolidated fi-
Financial statements combine the balance sheets and income statements of a parent and its subsidiaries and affiliated companies, excluding the effect of transactions between consolidated entities, thereby providing a more comprehensive and realistic picture of the financial health and profitability of the consolidated group. Affiliated companies are usually defined as companies controlled by the parent or a subsidiary or as companies in which the parent or a subsidiary has significant influence, with the latter frequently being defined as a shareholding of 10 percent or more. Although the rules differ from jurisdiction to jurisdiction, most accounting regimes require the production of consolidated financial statements except in two cases: (1) where the bases of accounting for the entities are not the same, such as when an insurance company is required by law to follow SAP but the other group members follow GAAP, or (2) where the reporting year-ends for the entities are significantly different (usually defined as more than three months apart).

**Exercise**

16. Describe the practice in your jurisdiction with regard to consolidated financial statements. Are audited consolidated financial statements required to be filed with the supervisor? You may not have insurance companies with subsidiaries, but what about situations where a supervised insurer is owned by a holding company or other entity. In that case, would you have consolidated financial statements that include your supervised insurer? Do you think there is an opportunity to improve your understanding of supervised insurers by making more widespread use of consolidated financial statements?
GAAP does not have a single international formulation. Although GAAP in most countries is based on the general principles set out at the beginning of this module, there are a vast number of possibilities when one moves from high-level principles to specific practices. As capital becomes increasingly globalized, businesses are becoming more international in character and an international standard of accounting is becoming more desirable.

The European Union has a particular need for consistency of accounting practices among its member countries, and it has taken the initiative in moving toward consistent accounting standards across borders. To do so, it is relying on work by the International Accounting Standards Board (IASB), which, along with its predecessors, has been working on new international accounting standards for the past several years. Progress continues to be made, to the point that on January 1, 2005, companies with shares listed on European stock exchanges were required by a European Commission decree to adopt International Financial Reporting Standards, or IFRS, as the new standards are known.

However, insurance contracts give rise to particular complexities when attempting to put into practice some of the principles on which the IFRS regime is based. In recognition of these complexities and the need to develop robust approaches that will be feasible to apply and at the same time avoid anomalous results for insurers, the IASB adopted IFRS 4 on March 31, 2004. This guidance establishes a number of transitional provisions for insurers so that, for insurers following international accounting standards, the move to IFRS will take place in two phases. The first phase became effective on January 1, 2005. The IASB has indicated that this initial phase is intended to make “limited improvements to accounting practices” and “provide insights into the key risk drivers and sensitivities” regarding insurance contracts. The IASB has indicated that it intends to move ahead without delay to develop a second-phase standard and is continuing to discuss the application of fair value concepts in accounting for insurance contracts. (The latest estimates are that the second phase may become effective in 2008 or later.) In the meantime, the IASB is continuing to receive input from affected parties.

It remains to be seen precisely how the developing International Financial Reporting Standards will ultimately apply to insurance and reinsurance companies. If international standards are implemented, they will give rise to a number of fundamental questions for insurance supervisors. An important one is how, in countries other than the largest and most developed, insurance companies and insurance supervisors will obtain the human and technical resources required to cope with what may be much more complex reporting requirements. A related issue is how insurance supervisors will be able to assess independently the credibility of audited financial statements provided by insurers. How will they be able to understand the implications of all of the assumptions underlying the valuation process, and how will they assess the degree of sensitivity
the figures produced may have to differences in these assumptions? What adjustments
will regulators need to make for the accounts to be useful for supervision? Will jurisdic-
tions have to adopt a separate SAP system in order to facilitate the regulatory process?
These are all important issues that will need to be answered as the accounting structure
changes.

Exercise

17. Comment on how your supervisory authority might be able to respond to the adoption of some form of international accounting standards, assuming they are ultimately in a form that is not greatly different from what is now being discussed. How would you contrast the perspective of the accounting profession in your country with that of the supervisory authority? To what extent might issues be similar? Different? What about the insurance industry? Do you see the industry in your country as favorably inclined toward the new approaches? Neutral? Opposed?
E. Reference

Appendix I. ICP 12

ICP 12: Reporting to supervisors and offsite monitoring

The supervisory authority receives necessary information to conduct effective offsite monitoring and to evaluate the condition of each insurer as well as the insurance market.

Explanatory notes

12.1. It is essential for the supervisory authority to receive information necessary to conduct effective offsite monitoring, which can often identify potential problems, particularly in the interval between onsite inspections, thereby providing early detection and prompting corrective action before problems become more serious.

12.2. The supervisory authority decides what information it requires, in what form, from whom, and with what frequency. The reporting requirements are a reflection of the supervisory needs and will thus vary according to overall market structure and situation. They also reflect the situation at individual insurers and the way they control their risks (for example, asset-liability management, reinsurance policy). Information should be both current and prospective in nature. In setting the requirements, the supervisory authority should strike a balance between the need for information for supervisory purposes and the administrative burden it puts on insurers.

12.3. Reporting requirements should apply to all insurers licensed in a jurisdiction and form the general basis for offsite analysis. The reporting requirements should be reviewed periodically. Additional information may be requested from specific insurers on a case-by-case basis. New developments may require the supervisory authority to carry out market-wide offsite analyses, which will require having insurers to submit information on an ad hoc basis.

12.4. In setting the requirements, the supervisory authority may make a distinction between the standards applied to reports prepared for disclosure to policyholders and investors and those applied for the supervisory authority.

12.5. In setting the requirements, the supervisory authority may make a distinction between the financial reports and calculations prepared for companies incorporated in its jurisdiction and branch operations in its jurisdiction of companies incorporated in another jurisdiction.
Essential criteria

a. The supervisory authority:

- Sets the requirements for the submission of regular and systematic financial and statistical information, actuarial reports, and other information from all insurers licensed in the jurisdiction
- Defines the scope and frequency of those reports and information, including any requirement that reports and information be audited
- Requires, as a minimum, an audit opinion should be provided annually (refer to ICP 1, essential criterion e)
- Requests more frequent and more detailed additional information whenever there is a need.

b. If making a distinction between the financial reports and requirements of companies incorporated in the jurisdiction and branches, or between private entities and government-sponsored insurers that compete with private enterprises, the supervisory authority should not distort the market in favor of or against any particular form of enterprise.

c. The supervisory authority:

- Requires insurers to submit information about their financial condition and performance on both a solo and a group-wide basis. It may request and obtain financial information on any subsidiary of the supervised entity
- Sets out the principles and norms regarding accounting and consolidation techniques to be used; the valuation of assets and liabilities should be consistent, realistic, and prudent (refer to ICP 21, essential criterion b)
- Requires insurers to report any off-balance-sheet exposures
- Requires insurers to report on their outsourced functions
- Requires that the appropriate level of an insurer’s senior management is responsible for the timing and accuracy of these returns
- Requires that inaccurate information be corrected and has the authority to impose sanctions for deliberate misreporting
- Based on this information, maintains a framework for ongoing monitoring of the financial condition and performance of the insurers.
**Advanced criteria**

d. From time to time, the supervisory authority reviews its regular and systematic reporting requirements to ensure they still serve their intended aims and are carried out in an efficient and effective manner.

e. The supervisory authority requires insurers to report promptly material changes that affect the evaluation of their condition.
Appendix II. Balance sheet and income statement for General Insurance Company: Canadian format

**ASSETS**

($'000)

<table>
<thead>
<tr>
<th>Page</th>
<th>Current Year (01)</th>
<th>Prior Year (03)</th>
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<td>Cash</td>
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<td>Investment Income due and accrued</td>
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<td>Investments:</td>
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<td>Bonds and Debentures</td>
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<td>Mortgage Loans</td>
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<td>Policyholders</td>
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<td>Other Insurers</td>
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<td>Facility Association and the &quot;P.R.R.&quot;</td>
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<td>50.40</td>
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<td>Other Receivables</td>
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<td>Unpaid Claims and Adjustment Expenses</td>
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<td></td>
<td>Other Recoverables on Unpaid Claims</td>
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<tr>
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<td>Investment in Subsidiaries, Affiliates &amp; Partnerships</td>
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<td>Real Estate for Insurer's own use</td>
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<td>Deferred Policy Acquisition Expenses</td>
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<td>Future Income Taxes</td>
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<td>50.50</td>
<td>Other Assets</td>
<td>88</td>
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<td></td>
<td><strong>TOTAL ASSETS</strong></td>
<td>89</td>
</tr>
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</table>
# LIABILITIES AND EQUITY

($'000)

<table>
<thead>
<tr>
<th>Page</th>
<th>Current Year (01)</th>
<th>Prior Year (03)</th>
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<td></td>
<td>Policyholders</td>
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<td>Other Insurers</td>
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<td>Subsidiaries and Affiliates</td>
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<td>Expenses due and accrued</td>
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<tr>
<td></td>
<td>Income Taxes due and accrued</td>
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<tr>
<td></td>
<td>Other Taxes due and accrued</td>
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<td></td>
<td>Policyholder Dividends and Rating Adjustments</td>
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<td>Unearned Premiums</td>
<td>...............................................</td>
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<td>60.30</td>
<td>Unpaid Claims and Adjustment Expenses</td>
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<td>80.10</td>
<td>Unearned Commissions</td>
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<td>Other Liabilities</td>
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<td>Total Liabilities</td>
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<td>Shares issued and paid</td>
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<tr>
<td>Contributed Surplus</td>
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<td>42</td>
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<tr>
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<td>...............................................</td>
<td>43</td>
</tr>
<tr>
<td>20.40</td>
<td>Retained Earnings</td>
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<tr>
<td>20.40</td>
<td>Reserves</td>
<td>...............................................</td>
</tr>
<tr>
<td></td>
<td>Total Equity</td>
<td>...............................................</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND EQUITY</strong></td>
<td>...............................................</td>
<td>89</td>
</tr>
</tbody>
</table>
## STATEMENT OF INCOME
($'000)

| Page | | Current Year (01) | Prior Year (03) |
|------|------------------|------------------|
|      | **UNDERWRITING OPERATIONS** | | |
|      | **Premiums Written** | | |
|      | | Direct | 01 |
|      | | Reinsurance Assumed | 02 |
|      | | Reinsurance Ceded | 03 |
| 60.20 | | **Net Premiums Written** | 04 |
|      | | Decrease (increase) in Unearned Premiums | 05 |
| 60.20 | | **Net Premiums Earned** | 06 |
|      | | Service Charges | 07 |
|      | | Other | 08 |
|      | | **Total Underwriting Revenue** | 09 |
| 60.20 | | **Net Claims and Adjustment Expenses** | 10 |
|      | | Acquisition Expenses | |
| 80.10 | | | Commissions | 11 |
|      | | | Taxes | 12 |
| 80.10 | | | Other | 14 |
| 80.20 | | | General Expenses | 16 |
|      | | **Total Claims and Expenses** | 19 |
|      | | Premium Deficiency Adjustments | 20 |
|      | | **Underwriting Income (Loss)** | 29 |
| 40.05 or | | **INVESTMENT OPERATIONS** | |
| 40.10 | | Income | 32 |
|      | | Recognized Gains (Losses) | 33 |
|      | | Expenses | 34 |
|      | | **Net Investment Income** | 39 |
|      | | **OTHER REVENUE AND EXPENSES** | |
|      | | Income (Loss) from Ancillary Operations | |
|      | | (net of Expenses of $'000) | 40 |
|      | | Share of Net Income (Loss) of Subsidiaries and Affiliates | 41 |
|      | | Gains (Losses) from fluctuations in Foreign Exchange Rates | 42 |
|      | | Other | 43 |
|      | | **Net Income (Loss) before Income Taxes and Extraordinary Items** | 49 |
|      | **INCOME TAXES** | | |
|      | Current | 50 |
|      | Future | 51 |
|      | **Total Income Taxes** | 59 |
|      | Extraordinary Items (net of Income Taxes of $'000) | 60 |
|      | **NET INCOME (LOSS) FOR THE YEAR** | 89 |
Appendix III. Contents of General Insurance submission: Canadian example

General Information
Corporate Data, Officers, Auditor, Actuary
Directors
Shares
Shareholders
Corporate Organization Chart
Other Information
Summary of Selected Financial Data for five years

Financial Statements
Assets
Liabilities and Equity
Statement of Income
Statement of Retained Earnings
Reserves
Statement of Cash Flows
Notes to Financial Statements

Statutory Compliance
Minimum Excess Assets over Liabilities (Quebec)
Required Margin on Net Unearned Premiums (Quebec)
Deferred Policy Acquisition Expenses and
Unearned Commission Adjustment (Quebec)
Minimum Capital Test
Capital Required for Balance Sheet Assets

Investments
Summary of Investments and Limits
Summary of Investments (Quebec)
Term Deposits (Quebec)
Bonds and Debentures
- Short Term (Quebec)
- Long Term (> five years) (Quebec)
Mortgage Loans
- Short Term (Quebec)
- Long Term (> five years) (Quebec)
- Summary (Quebec)
Preferred Shares (Quebec)
Common Shares (Quebec)
Real Estate (Investment and for own use)
Other Investments

Miscellaneous Assets and Liabilities
Receivable from/payable to Agents & Brokers
Other Receivables
Receivable from/payable to Other Insurers
Investment in & Amounts receivable from/payable to
Subsidiaries, Affiliates and Partnerships
Other Assets and Liabilities, and Off-Balance Sheet Assets and Liabilities
Premiums, Claims and Adjustment Expenses
   Unearned Premiums
   Premiums and Claims
   Analysis of Claims Paid and Unpaid
   Net Claims and Adjustment Expenses Run-off
   Net Claims and Adjustment Expenses Run-off - Discounted
   Adjustment Expenses

Provincial and Territorial Summaries
   Premiums Written
   Premiums Written (Policies with a term of more than 12 months) (Quebec)
   Premiums Earned
   Claims Incurred

Reinsurance Ceded
   Premiums and Claims by Line of Business
   Summary of Reinsurance
   Unregistered Insurers (Quebec)
   Unregistered Insurers
   Non-owned Assets Held on Deposit and Letters of Credit

Commissions and Expenses
   Commissions
   Expenses - Insurance Operations

Out of Canada Exhibits
   Out of Canada Operations
   Assets
   Liabilities
   Statement of Income
   Premiums and Claims
   Net Claims and Adjustment Expenses - Run-off
   Net Claims and Adjustment Expenses - Run-off (discounted)
   Reinsurance Ceded

Affidavit
Appendix IV. Examples of accounting entries

Insurance supervisors are not expected to be insurance accountants as well. However, for those supervisors who wish to review the debits and credits on a number of typical general insurance company transactions, the material set out below should be of interest. In addition, in accounting for transactions, it is not uncommon that more than one series of debits and credits might produce the same result in the financial statements. Therefore, the entries shown below are not necessarily the only correct possibilities.

The XYZ General Insurance Company:

- Transacts primarily automobile insurance and other general lines
- Exclusively uses brokers to sell its insurance products. Commission rates are 22 percent for property and 10 percent for automobile, both new and renewal policies
- Has two major reinsurance agreements. The first is a quota share treaty whereby 25 percent of the company’s total business is ceded. For this, the company receives a commission of 30 percent on property business and 15 percent on automobile business. The second treaty is a catastrophe agreement providing coverage if a single occurrence results in losses in excess of $1 million; the company retains 10 percent of the excess of $1 million up to $50 million.

Example 1

An automobile policy is issued for $3,000. The company provides for payments in three installments—at inception and after each of the first two months.

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td></td>
<td>1,000</td>
</tr>
<tr>
<td>Debit</td>
<td>Receivable from broker</td>
<td>2,000</td>
</tr>
<tr>
<td>Credit</td>
<td>Direct premiums written</td>
<td>3,000</td>
</tr>
<tr>
<td>Debit</td>
<td>Commissions paid</td>
<td>300</td>
</tr>
<tr>
<td>Credit</td>
<td>Payable to broker</td>
<td>300</td>
</tr>
<tr>
<td>Debit</td>
<td>Premiums ceded (revenue)</td>
<td>750</td>
</tr>
<tr>
<td>Credit</td>
<td>Payable to quota share reinsurer</td>
<td>750</td>
</tr>
<tr>
<td>Debit</td>
<td>Receivable from quota share reinsurer</td>
<td>112.5</td>
</tr>
<tr>
<td>Credit</td>
<td>Commission received</td>
<td>112.5</td>
</tr>
</tbody>
</table>
Debit | Change in direct unearned premiums | 3,000
Debit | Recoverable from quota share reinsurer | 750
Credit | Direct unearned premiums | 3,000
Credit | Change in ceded unearned premiums | 750

In many companies, this last entry is only done at the end of an accounting period. Thus the foregoing entry would be made if the date when the policy was issued was, say, June 30. Subsequent entries for unearned premiums and changes in unearned premiums would be made at the end of every month.

Similarly, at the end of the period, an asset—deferred commission—would be established for the amount of the commission that is considered recoverable. As well, a liability for the portion of the unearned commission would be set up. The income statement includes these two items, which are called change in deferred commission and change in unearned commission.

In some cases, the information technology systems would provide for these entries immediately upon receipt of the information regarding sale of the policy. In other cases, the data would be entered into the system on a batch basis later on.

**Example 2**

A claim is incurred on one of the property policies. The company estimates that the cost of settling the claim will be $100,000.

Debit | Change in direct unpaid claims | 100,000
Credit | Direct unpaid claims | 100,000
Debit | Recoverable from quota share reinsurer | 25,000
Credit | Change in ceded unpaid claims | 25,000

**Example 3**

The foregoing claim is settled, with the final balance paid to the client amounting to $110,000.

Debit | Direct claims paid | 110,000
Credit | Cash | 110,000
Debit | Direct unpaid claims | 100,000
Credit | Change in direct unpaid claims | 100,000
Debit Change in ceded unpaid claims 25,000
Credit Recoverable from quota share reinsurer 25,000

Debit Receivable from quota share reinsurer 27,500
Credit Ceded claims paid 27,500

Regardless of whether or not the initial claim was incurred in the current accounting period, the additional amount required to settle the claim would be reported in the current year. This also applies to unpaid claims or prior years, where the estimated amount changes. Any addition or reduction to the unpaid claims provisions for prior years is included in the current year’s income statement.

**Example 4**

A major storm results in significant damage to the property of numerous clients. It is estimated that the total claims resulting from the storm for the company will be approximately $2 million.

Debit Change in direct unpaid claims 2,000,000
Credit Direct unpaid claims 2,000,000

Debit Recoverable from quota share reinsurer 500,000
Credit Change in ceded unpaid claims 500,000

Debit Recoverable from catastrophe reinsurer 450,000
Credit Change in ceded unpaid claims 450,000

In this situation, any amounts recoverable from other reinsurers are taken into account before the catastrophe reinsurance.

**Example 5**

A client is involved in an automobile accident in which it is determined that the other driver is at fault. No injuries are sustained, but the damage to the vehicle is so extensive that the car, which has an insured value of $25,000, is “written off.” However, salvage from the wreckage is estimated at $5,000.

Debit Change in direct unpaid claims 25,000
Credit Direct unpaid claims 25,000
Debit Recoverable from quota share reinsurer 6,250
Debit Other recoverables 5,000
Debit Change in ceded unpaid claims 1,250

Credit Change in ceded unpaid claims 6,250
Credit Change in direct unpaid claims 5,000
Credit Recoverable from quota share reinsurer 1,250

In this case, the reinsurer’s portion of the gross amount of the claims would be $6,250. However, because of the salvage, the reinsurer’s portion is reduced by 25 percent of the estimated salvage of $5,000, or $1,250. The actual entries that would normally be made would reflect only the net amount of $5,000.
Appendix V. Answer key

1. SAP rules generally mandate a conservative approach to accounting. Consider and discuss the following statement: If statutory accounting principles had been followed by companies such as Enron, Worldcom, and Parmalat, the accounting excesses that made their operations appear to be highly profitable—when subsequent developments showed this was not the case—would not have occurred, and the companies would not have failed. If you think the statement is correct, then why do you think that SAP-like accounting regimes are not being recommended for adoption by companies in general?

It should be remembered that SAP also has drawbacks. As indicated in the text, aggressive writing off of expenses and other conservative practices can be useful for supervisors but may lead potential investors to wrong conclusions. The text provides examples of the healthy, growing life insurer that appears to be unprofitable under SAP and of the stagnating life insurer that appears to be profitable under SAP. Aggressive GAAP can maximize the apparent increase in value during an accounting period, but SAP tends to minimize the apparent increase in value. In either case, the reader of the financial statements is not in a position to measure the impact or significance of the reporting approach. In addition, perhaps even more so than GAAP, SAP requirements in many countries do not deal with, or do not deal adequately with, the issues arising from off-balance-sheet exposures arising from derivative contracts and some other transactions. These types of exposures have played a major role in the case of Enron and a number of other noted corporate failures, so there is little evidence to suggest that SAP approaches would have been more effective than GAAP in those countries.

One of the major problems with Enron was related-party transactions. Consider any differences in the GAAP and SAP disclosures of related-party transactions. For example, prior to Enron, the related-party disclosures and rules tended to be stronger in U.S. SAP than in U.S. GAAP, but that may have changed. It is also important to remember that how the supervisor uses the accounting reports and other tools available has a considerable bearing on their effectiveness. Hence, the issue with Enron or Worldcom may have been due more to the nature (or lack) of their regulation than to their accounting.

Some have expressed the view that the best accounting system is one that provides an accurate picture of the extent to which a company’s underlying economic value has changed from one accounting period to another. They would argue that accounting approaches that are especially conservative or especially aggressive do not meet this test.
2. The supervisor should never require any information that is not otherwise required by senior management and the board of directors to chart the course of the company. Discuss this statement. Do you agree? If not, provide some examples of information that you think is necessary for the supervisor but not necessary, or not of significant importance, for company management.

Supervisors using the more traditional approach to supervision—that is, a compliance-oriented approach with a significant emphasis on checking (and rechecking) data—often request a large amount of very detailed information in the annual filing. Under a risk-based or more pro-active approach, the supervisory information system, including the annual filing from insurers, focuses on critical operational parameters that the supervisory authority knows are relevant to risk assessment. It is difficult to come up with any example of information that would not be important to management but would be important to the supervisor.

Although management may be reluctant to complete the required detailed information, which they view to be unimportant, in doing so they sometimes uncover issues that demand their attention. Therefore, it may be more accurate to say that “supervisor(s) should never require any information that is not otherwise required or should be required by senior management,” as weak management teams may be saved by disclosures that are forced on them rather than requested of them. The importance of forcing management to adopt a minimum level of prudent practice should not be overlooked.

3. Appendix III presents the format of the annual financial filing required by the Canadian supervisor, OSFI, from general insurers. Appendix II presents the balance sheet and income statement required as part of the annual filing. Review these documents and compare them with the format for the submission used in your own jurisdiction. Do you see areas where you think the Canadian form could be improved?

It might be helpful to consider the reporting required by supervisors in other jurisdictions. For example, for non-life insurance, Australia and the United States might be considered, as their environments encourage litigation, and significant disclosure is therefore important. If your jurisdiction experiences high inflation or does not have active financial markets, reviewing the reporting required in other jurisdictions in similar situations might be useful, as such conditions can drastically shape the insurance environment. The focus should be on identifying the major risks facing the insurance industry and then on seeing what information might help the supervisor (and other stakeholders) to understand the insurer’s exposure to those risks.
4. A general insurance company has outsourced its claims-adjusting function. When a claim is reported, the insurer notifies the outsource claims-adjusting company, which then causes one of its claims adjusters to visit the site of the loss and prepare an estimate as to the amount that will have to be paid to settle the claim. The outsource company then notifies the insurer of the amount, and this is set up as a case provision in the insurer’s claim files. The insurer has indicated that the outsource claims-adjusting company is more specialized and has greater expertise in this area than the insurer can support in house. Comment on this situation. Are there any potential supervisory concerns? If so, are there ways in which they might be dealt with? Are there any potential advantages to using the outsource firm?

Claim payments are a critical function for an insurer. The insurer must retain close control of the process to protect its position and the position of policyholders. If the adjusting firm is not making accurate estimates, the reported financial results of the insurer will be incorrect, with obvious implications for the supervisor and anyone else who is trying to assess the insurer’s true financial position. This is not to say that claims adjusting should not be outsourced, but the supervisor would want to review the situation very closely to ensure that strong and appropriate safeguards are in place. An advantage is that the outsource company (assuming that it is completely independent of the insurance company) has no incentive to either overstate or understate provisions. By comparison, the insurer may have a strong incentive to understate provisions in order to improve its apparent profitability and financial position (or to overstate provisions in order to defer taxes to future periods).

Other key points include the following:

- The outside firm performing the claim services may be unaware of, inexperienced with, or unwilling to record the additional detailed information that may be required of an insurer beyond the information required of a non-insurer. For example, the requirements for non-insurers may not require the estimation of IBNR, reopened claims, or after-closing payments. Or the non-insurers may be allowed to discount their liability, while an insurer may not. Or the non-insurer may not know about or not care about the line-of-business coding requirements placed on insurers. Hence, the additional data required of an insurer may be reported unreliably or not even be reported by such a company. (These companies are sometimes called TPAs, or “third-party administrators,” with regard to outsourced claim operations.)

- One issue that has arisen is the ownership of the records with regard to such businesses. If the relationship with the outside claim service ends (and the service agreement has not been drafted carefully), disputes may arise about who owns the records supporting the claim estimates, which may affect how quickly they can be transferred.
• Is the outside claim service company able to provide sufficient documentation to ensure collectibility of the amounts reinsured? This has been a major problem in some insolvencies where the insolvent insurer used outside claim services.

5. Does the supervisory authority under your law have the power to obtain an insurer’s management reporting package on a regular basis, assuming for the sake of argument that the insurer is considered to be higher than acceptable risk? Comment on the value of this type of information from a supervisory perspective.

As mentioned in the text, the management reporting package can provide considerable insight into a company’s operations. First, these reports provide clear indicators of what is happening at an operational level, thus giving management early warning of any matters that need to be investigated or acted on as well as opportunities for increasing revenue and profitability. Second, these reports provide a window into the company’s ability to gather relevant information and present it in a way that gives clarity to what can easily become confusion.

The management reporting package should reconcile with the published financial statements. There may be valid reasons why they do not balance exactly, but sufficient accounting controls are needed. For example, a management reporting package that ignores the potential for adverse development in non-life insurance claim provisions, or that allows for manipulation by those being measured by it, would be a cause for alarm, while strong controls over these reports would be a positive sign with regard to management competency.

6. Do the onsite inspectors in your jurisdiction check the premium accounting function in the companies they visit to ensure that premiums are being earned in an appropriate manner? In many jurisdictions, this is not done because it is expected that the independent auditor will have checked this aspect of the insurer’s accounting system and that he or she will have been satisfied that the process produces reliable and accurate data. When this is the approach, supervisory staff will confer with the auditor before commencing the inspection to understand what system and data checks have been performed and the extent of the auditor’s confidence in the results. In addition, at this stage the supervisor would want to find out if the auditor uncovered any problems, and whether these have been resolved satisfactorily.

Discuss the advantages and disadvantages of these two approaches: that is, (a) the supervisor does the checking without regard to the work of the auditor, and (b) the supervisor works with the auditor to understand the audit process and what it has achieved.

In some countries, there is a feeling that the work of the independent auditor is not reliable, making it necessary for the supervisor to carry out any checks or
verifications that may be required. In some cases, this feeling is justified; in some cases, it is not. Regardless, it is generally helpful at least to meet with the auditor, including a representative of the insurer, to discuss the scope of the audit and the findings. Even if the supervisor is correct in believing that the audit work is not reliable, this increased supervisory scrutiny will emphasize the importance of the work and may gradually lead to an improvement in its quality. Even better would be for the supervisor to advocate formation of a joint working group or task force with the country’s institute of auditors, for the purpose of improving audit standards so that the supervisor can place greater reliance on the auditors’ work. This is in the interests of the auditing profession as well as the supervisor. In the meantime, until appropriate improvements have been effected, the supervisor may have little choice but to redo some of the work that should be done by the independent auditor. A situation in which the supervisor can rely fully on the work of the auditor (with provision for sanction if the auditor does not act reliably or professionally) and therefore devote scarce supervisory resources to other areas is generally preferable to one in which the supervisor must duplicate some or all of the work that should be carried out by the auditor.

7. Flooding during your country’s annual January-February rainy season has been a serious problem for businesses and individuals. As supervisor, you are carrying out an onsite inspection of your country’s largest general insurer, and you find that its management has decided to capitalize on this situation by developing a flood insurance product. The policy is for a one-year term, and virtually all sales are concentrated in March and April of each year—that is, just after the rainy season, when people are thinking about the damage that has occurred. The insurer is very pleased that the product has been so popular, quickly becoming its second largest-selling product by premium volume. Prepare a short list of questions you have for this insurer with regard to the new product. Be prepared to explain why you feel that these questions are important.

Several important questions might be the following.

- How are premiums earned on this policy? If they are pro rata on an annual basis, the company’s income statement at the December 31 year end will reflect a large amount of premium earned, because the policies are sold in March and April, but the claims will not be recorded until the following year. In this case, the company is not matching the premiums with the risk under the policy. If, for the sake of argument, we assume that all premiums are written on April 1, then nine months of premium will be earned by year end, with zero claims. In other words, each policy will show a profit more or less equal to two-thirds of the premium amount, which is virtually unheard of for any general insurance product. A much more accurate way of accounting would
be to leave all (or nearly all) premiums unearned until January 1 of each year (because no risk will have arisen until that point in time) and then fully earn the premiums over the January-February rainy season. Under this approach, the first year of premium will show neither a profit nor a loss (no premiums earned and no claims incurred), but the second year will show 100 percent of earned premiums against all incurred claims, so there will be a proper matching of revenue and expense.

- **Why would sales of this product grow so quickly?** The growth rate must be phenomenal, considering that we are looking at the country’s largest domestic insurer and this product has become its second largest generator of premium. Brokers and prospective policyholders often have an almost magical way of sensing when a product is underpriced, leading to rapid sales. Rapid growth in sales in any line of general insurance may indicate that premium is not sufficient to cover claims. The market reaction in this case should put the supervisor on guard that, ultimately, the cost of claims for this product is going to exceed the amount of premium by a significant amount. However, the flood insurance product may be a genuine innovation, filling an important consumer need and thereby satisfactorily explaining the rapid growth in sales. However, given that we are dealing with the country’s largest domestic insurer, the prudent supervisor would want to monitor the situation closely. To this end, it may be appropriate to ask the company what research it carried out in order to establish that the premium is sufficient to cover claims plus generate a reasonable underwriting profit.

- **How is the insurer protecting itself against adverse selection?** Adverse selection occurs when, instead of getting a representative sample of the population as policyholders, the purchasers of the product are the very group that is liable to experience claims. Adverse selection is not a problem with classes such as fire and motor vehicle insurance because policyholders are not able to say with any assurance who will experience a loss. However, with a class of coverage such as flood insurance, much depends on the location of the insured property. Very few property owners who live on top of a high hill will consider buying flood insurance, whereas perhaps almost all property owners who live in low-lying areas with a history of flooding will opt to purchase the product. If the group buying insurance is composed primarily of those who are likely to have claims, a premium based on “average” statistics will be totally inadequate to cover claims.

- **What protection does the insurer have against a worse-than-average flood season?** One difficulty with a product like flood insurance is that there is a high probability that many insureds will suffer a loss at the same time—in statistical terms, the experience of one insured is highly correlated with that of the other insureds. Hence, it is likely that a bad flood season will affect all the insureds at the same time, not just a random sampling of insureds. To pro-
tect against this, the insurer needs a good reinsurance program, tailored to its solvency level such that it can survive possible but unusual events (such as a 1 in 50-year or 1 in 100-year flood season). The reinsurance also has to be with sufficiently strong reinsurers, as they also are likely to see claims from multiple reinsureds if a worse-than-average flood season occurs.

8. An insurer has made a significant equity investment (by buying treasury shares) in a business that is controlled by the company that also controls the insurer. The insurer has reported the investment at book value in accordance with local GAAP rules, which are also accepted by the supervisory authority. What are your comments on this situation?

It is assumed under normal GAAP rules that the purchase has been made at arm's length with an independent party. When the parties are not independent, there is no market discipline to ensure that the value arrived at represents a fair balance of the interests of the two parties to the transaction. In fact, inflated purchase prices of related-party investments are a classic means by which shareholders siphon funds out of an insurance company (which has easy access to public funds) for use in other shareholder-controlled companies. Overvalued investments in related parties have played a part in several insurance failures (for example, Baldwin United in the United States and the U.S. branch of Confederation Life of Canada). Some jurisdictions impose controls on related-party transactions for this reason. One type of control is exercised at the corporate governance level: the preapproval of a committee of the board containing a majority of independent directors is required for any related-party transaction, subject to their satisfaction that the transaction will take place at market value and is not contrary to the interests of the insurer. To be effective, the rules also have to impose significant penalties on directors who do not act in accordance with the provisions of the law.

Also, consider that this investment is much like a private-equity investment, which could result in reduced or nonexistent liquidity. Non-liquid investment can be a problem for insurers, especially if cash flow is uncertain and if non-liquid investments constitute a high percentage of the total investment portfolio.

9. An expression often used in the reinsurance industry is that the reinsurer will “follow the fortunes” of the ceding company. This phrase conveys the idea that the insurer and its reinsurer are forming a kind of partnership in which they will work together and support each other over time. Thus a technical problem arises in which the reinsurer might be able to deny a reinsurance claim, the reinsurer tends to support the insurer regardless. Business pressures have made this concept more and more a thing of the past, and in recent years at least some reinsurers have adopted more technical interpretations of contract terms in order to protect their own
position. This has made it all the more important for supervisors to be sure that reinsurance accounting is strictly in accordance with the terms of the reinsurance agreements and that the insurer is adhering to other aspects of the arrangement. Discuss the implications of this development in terms of supervisory resource requirements: reliance on auditors, technical training standards for onsite inspectors, the possible need for communication with reinsurers, and so forth.

This point ties in with exercises 2 and 6. The tendency of reinsurers to adhere more closely to the strict terms of reinsurance contracts places greater stress on the scarce resources of most supervisory agencies. It is difficult to review every aspect of every reinsurance contract in detail and then verify that all the key items are being appropriately accounted for by the ceding insurer. As mentioned under exercise 6, it is probably a more efficient use of resources to ensure that the supervisory system can rely on the independent auditor to ensure that the supervisor and other users of the financial statements can have an appropriate degree of confidence in the reinsurance accounting system.

There is also an issue of the reinsurer’s willingness to pay, which the supervisor can address by focusing on reinsurance concentrations. To the extent that the supervisor relies on reinsurers to pay the ceding company when evaluating its solvency, the supervisor should evaluate any such reinsurers representing a material portion of the ceded balances. This will require accurate reporting, reasonable estimates, or both, of reinsurance concentration, both for existing balances and for potential balances under certain events (such as large catastrophes or court decisions).

10. In your jurisdiction, do you have specific procedures or requirements for ensuring that IBNR amounts are included in the claims expenses for the period? Is this something that you think could be important in your jurisdiction? Why or why not?

If a jurisdiction has very little liability business, so that virtually all claims are short tail in nature, the supervisor may have many other higher-priority items for attention than IBNR reporting. However, it is important to understand the concept because, as the market matures, IBNRs can become an important component of claim expense. As insurance markets mature and develop, along with the national economy and business environment, liability and other longer-tail coverage often begins to account for a larger proportion of total general insurance premiums. As this happens, it becomes increasingly important to ensure that IBNRs are being estimated and reported accurately. This particularly applies to disability insurance, where the insurer may not become aware of a claim until the elimination period is over. It also can be important in life insurance where a death claim may not be reported for several weeks because the beneficiaries do not know about or cannot locate the policies in force.
IBNR can also be an important issue for some types of property coverage. One example is a winter weather catastrophe that affects a summer vacation area. Many claims may be filed months late, as owners arrive at their summer vacation property only to find storm damage from the winter storm. In general, IBNR can be a material issue whenever there are significant lags between the occurrence of an event and the filing of the related claims.

Another example is a health insurer that changes processing systems due to a merger and discovers several months later that the payment lags from the new system have created a problem with the recording of claims and hence an IBNR problem. The size of the problem is material to earnings, if not equity.

11. It might appear that life insurers pay an inordinately high rate of commission for new business. Over the long term, this practice might appear to place life insurers at an economic disadvantage compared to other types of financial institutions that do not reward their sales forces so aggressively. Discuss these statements. Do you agree or disagree? Why do you suppose that this practice has continued successfully for so long?

This statement does not fully describe the situation. Commission rates in life insurance, which are equal to or greater than the first year’s premium, are high compared to, say, general insurance, where the rate of commission might be in the range of 12–20 percent of the premium, depending on the nature of the business and the amount of effort required on the part of the agent or broker to put it on the books. What this statement overlooks, however, is that for most life insurance products we are talking about a long-term contract. If a life agent writes a policy that is in place for 50 years at a fixed premium of $1,000 per year, and he or she receives a commission of $1,000 (that is, equal to the first-year premium), it is a very small percentage of the value of the entire contract from the perspective of the life insurer. Also, for products that are more comparable to those offered by other institutions, such as unit-linked products, which are similar to mutual funds, competition generally ensures that the commission rates paid to the life agents are not significantly different from the commission rates paid to mutual fund salespeople, that is, much less than the first-year “premium.” In any event, the amount of commission paid to agents is directly affected by competition among companies to hire the best producers and pressures on pricing to be competitive with other alternatives, both insurance and non-insurance related.
12. Consider the following statement: In some countries the underwriting results, especially in the motor vehicle line of business, have historically been very poor. In these countries, if there were a properly calculated provision for unexpired risk, many insurers would suddenly appear to be bankrupt. If you agree, do you think it would be a good practice to establish such a provision? Why do you think it has not been done?

In places where such conditions exist, it may also be the case that the supervisor has limited resources as well as an old, outdated insurance law, so that the supervisory authority does not have the power to enforce concepts such as a premium deficiency reserve. As well, some of the auditors may lack in-depth knowledge about insurance matters and so either are not aware of the issue or do not have the expertise to make the required calculations. Also, having in mind that any such approach may adversely affect the financial position of their client companies, there may be little incentive to press for resolution of the issue. Over time, these types of conditions can usually be changed, typically by a new, more modern insurance law and an empowered supervisor who is prepared to work closely with the auditing and actuarial professions to improve professional standards.

13. In each of the past five years, an insurer has shown first-year claim development of 43 percent, 39 percent, 26 percent, 20 percent, and 19 percent (starting five years ago, development figures as a percentage of the original claim provision). The insurer insists that the company’s provisioning technique is obviously improving and that any concerns by the supervisory authority are unfounded. Do you agree? If not, why not?

First of all, there is no excuse for such poor provisioning, and a first-year deficiency of 19 percent is far too high, regardless of the fact that it is better than the deficiency in the other years. Perhaps more important, however, the first-year deficiency (that is, development) is only an indication of the future. For example, severe underprovisioning may indicate that the company is merely improving its first-year estimates slightly and then pushing more of the underprovisioning into the later “tail” of the accident year. For example, suppose a company’s original provision for accident year 2000 is $20 million. During 2001, the company pays $10 million on these claims, and at the end of 2001 it still has a provision of $14 million, so the development is $4 million after one year, or 20 percent of the original provision. But there are still outstanding provisions of $14 million for these claims. If the ultimate amount that has to be paid to settle the $14 million of claims still outstanding is ultimately found to be $20 million, then the company originally established a provision of $20 million, but the total amount to settle the claims in question turned out to be $30 million (that is, $10 million...
in 2001 plus $20 million in later years to settle all of the year 2000 claims). Thus the final underprovisioned amount is found to be 50 percent of the original provision. This demonstrates that the first-year development is only an initial indication of the total amount of underprovisioning that may be present. For a much better picture, we need to look at the bottom line of the claims triangle to see how much underprovisioning is apparent when the runoff has continued for a number of years. Also, when one sees percentage deficiencies in the provisions that are consistently significant from year to year, deliberate underprovisioning almost certainly is taking place. In such circumstances, it would not be at all surprising for the company to set the provisions in such a way as to show an improving trend in the first-year development, if only to provide an argument that the situation is improving. The figures being referenced by the company in exercise 13 do not provide credible evidence that the company’s claims estimation practices are actually improving.

In addition, the inability (or unwillingness) to eliminate a claim provision estimation problem after five years would cast doubts about the ability of the company to report appropriately on new product lines, were it to expand its operations. This alone would justify increased supervisory attention to prevent the company from expanding into new areas until it can show competency in the product lines it currently has.

14. Many emerging-market countries either do not have any fully trained actuaries or have a considerable shortage of actuarial professionals. These countries usually have a preponderance of general insurance compared to life insurance business. To what extent do you think the former gives rise to the latter—that is, is there little life insurance because of a lack of actuaries? Or are there few actuaries because there is not much life insurance business? Are there other important reasons for the lack of life insurance business?

Usually the most important problems in emerging-market countries are a lack of awareness among the population with regard to the products sold by life insurers and a lack of available funds for such purchases. When people have little money to spare, to the extent that they purchase insurance at all, that insurance will most often be to protect the assets they already have rather than to provide a benefit when they die (other than, perhaps, to cover burial costs) or to provide for an investment program. Thus in most of these cases, the lack of actuaries is probably due to the fact that the life insurance business is not highly developed. In light of the long-term nature of life insurance, the actuarial profession in a jurisdiction generally develops first to support that business and then to support the non-life area. Another factor, however, is that even as the volume of life business begins to grow, the educational institutions in the country may be slow to develop programs of study that will help to develop an actuarial profession.
The supervisor can play a role in alerting educational institutions to the need for actuarial professionals. Supervisory authorities could contact the International Actuarial Association or the actuarial professional bodies in developed insurance markets for assistance in furthering the development of the profession in their jurisdiction.

15. Suppose two insurance companies are reporting on a GAAP basis as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Insurance company A</th>
<th>Insurance company B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>10,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Liabilities</td>
<td>6,000,000</td>
<td>6,000,000</td>
</tr>
<tr>
<td>Capital</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Surplus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory reserve</td>
<td>500,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Unappropriate surplus</td>
<td>2,500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Total capital and surplus</td>
<td>3,000,000</td>
<td>3,000,000</td>
</tr>
</tbody>
</table>

If you were a potential policyholder reviewing the companies’ financial statements with a view to selecting an insurer, which company would you be inclined to select? What are your reasons?

From the numbers given, GAAP accounting practices of Company A are probably more conservative than those of Company B. This is likely the case because, for Company B, the supervisor is indicating that its GAAP equity would have to be reduced by $2.5 million in order to bring it back to the more conservative statutory approach. By comparison, the adjustments for Company A would only amount to $500,000. Also, since in most countries it would be contrary to the Insurance Law to pay a dividend, which would impair the company’s solvency position, we can see that Company A could pay a maximum dividend of $2.5 million to its shareholders whereas Company B could only pay out $500,000. If both insurers were publicly listed on the stock exchange, other things being equal, we would expect Company A to trade at a higher multiple of earnings because of its greater ability to pay dividends.

Use of the appropriated equity account, under the heading “supervisory reserves,” does provide beneficial information for the reader of the financial statements. The approach also gives the supervisor flexibility in adjusting the company’s accounts “for supervisory purposes only” because the adjustments have no impact on the company’s audited financial statements, thereby minimizing the possibility of disagreements involving the supervisor, the auditors, and company management.

16. Describe the practice in your jurisdiction with regard to consolidated financial statements. Are audited consolidated financial statements required to be filed with
the supervisor? You may not have insurance companies with subsidiaries, but what about situations where a supervised insurer is owned by a holding company or other entity. In that case, would you have consolidated financial statements that include your supervised insurer? Do you think there is an opportunity to improve your understanding of supervised insurers by making more widespread use of consolidated financial statements?

It is becoming more and more common for insurers to be members of larger groups of corporations, sometimes composed solely of other financial institutions and sometimes composed of a mix of financial and nonfinancial entities. International experience has clearly demonstrated that so-called “contagion” effects are extremely difficult to avoid in supervised insurers that are members of groups. In other words, when there are major problems in one company of a group, it is highly likely that the problems will migrate to other group members (if for no other reason than that the still-healthy company in the group will have to support a bigger share of the total corporate cash and capital needs). Despite this, however, supervisors in many countries are only beginning to consider the issues raised by consolidated supervision. Consolidated supervision includes a number of supervisory techniques, one of which is to use consolidated financial statements, which provide useful information for supervisors. In most cases, these statements are already being produced because of local GAAP requirements, so no significant incremental supervisory burden will be placed on industry members.

Some things should be kept in mind when using consolidated financial statements. For one, a strong consolidated financial position does not guarantee support for an insurer. Should problems arise, the parent company may be under no legal obligation to support the insurance company, so the supervisor must continue to consider the financial situation of the insurer itself.

Second, the assets of the group may not be fluid—that is, they will not be readily transferable from one entity to another. For example, the group may appear solvent on a consolidated basis, but it may not be if most of the value is locked into a legal entity in a jurisdiction with restrictions on the transfer of funds outside the jurisdiction. Therefore, the ability or inability to transfer funds from one part of the group to another is an important area to investigate (and require disclosure on) when evaluating consolidated financial statements.

17. Comment on how your supervisory authority might be able to respond to the adoption of some form of international accounting standards, assuming they are ultimately in a form that is not greatly different from what is now being discussed. How would you contrast the perspective of the accounting profession in your country with that of the supervisory authority? To what extent might issues be similar?
Different? What about the insurance industry? Do you see the industry in your country as favorably inclined toward the new approaches? Neutral? Opposed?

The supervisory authority would need to consider the similarities and differences between the existing accounting standards in the jurisdiction, both for published financial statements and regulatory reporting and for international accounting standards. If the differences are few, it may be relatively easy to make the change and to modify the existing regulatory returns to base them on the figures reported under international accounting standards. If the differences are many or significant in nature, the supervisor will need to consider the potential impact of the changes on the reported financial positions of insurers, such as solvency margins. The supervisor will also need to consider the availability of expertise, among the insurers, auditors, and its own staff, to implement the international accounting standards, such as fair value calculations of liabilities. Issues such as the need for supplemental reporting and transitional provisions may be relevant. The accounting profession is likely to object to regulatory reporting requirements that would conflict with those of international accounting standards, or would make it difficult to obtain a clean audit opinion. Insurers may be concerned about the impact of the change on their reported financial position and potential transitional and ongoing reporting costs.