Appendix Chapters:
Personal Risk Management

- Personal Risk Management
- Legal Aspects of Insurance
- Personal Property Loss Exposures
- Personal Liability Loss Exposures
  - Loss of Health
  - Loss of Life
  - Retirement
Table of Contents

Chapter A1 Personal Risk Management
  Introduction .................................................................................................................. 2
  Risk Assessment ......................................................................................................... 4
  Loss Control ................................................................................................................ 6
  Risk Financing ........................................................................................................... 9
  Discussion Questions .................................................................................................. 12

Chapter A2 Legal Aspects of Insurance
  Introduction ............................................................................................................... 14
  Legal Principles Relating to Insurance ..................................................................... 14
  Insurance Contracts .................................................................................................. 20
  Law of Agency .......................................................................................................... 26
  Dispute Resolution ................................................................................................... 27
  Discussion Questions .................................................................................................. 28

Chapter A3 Personal Property Loss Exposures
  Risk Assessment ....................................................................................................... 30
  Loss Control ............................................................................................................... 33
  Risk Financing .......................................................................................................... 35
  Summary ................................................................................................................... 47
  Discussion Questions .................................................................................................. 47

Chapter A4 Personal Liability Loss Exposures
  Introduction ............................................................................................................... 48
  Risk Assessment ......................................................................................................... 51
  Risk Control .............................................................................................................. 55
  Risk Financing .......................................................................................................... 56
  Discussion Questions .................................................................................................. 66

Chapter A5 Loss of Health
  Types of Health Risks Faced by Individuals ............................................................... 67
  Medical Expenses ...................................................................................................... 68
  Financing Medical Care ............................................................................................ 69
  Long term Care Expenses ......................................................................................... 73
  Disability and Loss of Income ................................................................................... 77
  Discussion Questions .................................................................................................. 81

Chapter A6 Loss of Life
  Introduction ............................................................................................................... 82
  Assessment of the Consequences of Death ................................................................. 82
  Loss Control Applied to the Death Exposure ............................................................. 85
  Financing the Death Exposure ................................................................................... 87
  Life Insurance ........................................................................................................... 87
  Employer-Provided Death Benefits ........................................................................... 95
  Government Death Benefits ....................................................................................... 97
  The Importance of Monitoring .................................................................................. 98
  Discussion Questions .................................................................................................. 98

Chapter A7 Retirement
  Introduction ............................................................................................................... 99
  Assessment of the Consequences of Retirement ....................................................... 99
  Loss Control Applied to Retirement ......................................................................... 104
  Financing the Retirement Exposure .......................................................................... 105
  Discussion Questions .................................................................................................. 114
Chapter A1

Personal Risk Management

INTRODUCTION

In this appendix, we examine personal (individual) risk and its management. The focus is on U.S. practice, although the principles are universal. Additionally, while the insurance policies introduced here are shaped by U.S. practice and law, similar policies will be found in almost every market worldwide.

This chapter, the first of the series, begins with an overview of the types of risks, using the risk classification scheme introduced in Chapter 1. By doing so, we can effectively examine the risks faced by individuals and families and the techniques available in managing these risks. As individuals and families usually have limited wealth and cash flow relative to the financial consequences of many risks, insurance is commonly utilized to transfer the financial consequences of these risks to insurers. The more common individual insurance policies are described, including personal automobile insurance, homeowner’s insurance, life insurance and health insurance.

The balance of this chapter applies the risk management process to individual loss exposures. Some risk assessment techniques are suggested that provide a framework for classifying individual losses by their expected frequency and severity. This framework is useful in (a) understanding the nature of losses, (b) determining appropriate loss control measures, and (c) selecting an optimal risk financing strategy.

Operational Risks

Operational risks are common to people, their possessions, and their personal activities. The term "internal" is used in Chapter 1 in discussing this type of risk because individuals themselves tend to have greater control over these risks than they do with financial risks and strategic risks. Financial and strategic risks involve macro events or conditions that are usually beyond the control or influence of individuals. Operational risks, however, are more amenable to individual behavior and action. Property can be preserved from damage or loss. The chance for a long life can be improved through proper diet, exercise and personal habits. The same is true for good health and the quality of life in retirement. Good risk management practices for individuals have more application to operational risks than to the other types of individual risks.

Property Loss Exposures

Individuals acquire property over their entire lifetime. In the early years, parents provide for you. When you are able to work, you begin to acquire some of your own "stuff," including hand-held music and video players, multi-function cellular phones and the other necessities of life not fully appreciated by parents. Then comes the big transition – driving. At some point, parents may provide a car for you. (Some resourceful teenagers raise enough money for that first car.) For the first time, you encounter a major source of loss, both from property damage to the car as well as the potential legal liability from the ownership and operation of your automobile.

The next major evolution in property acquisition is when you establish your first home away from home. This could be a college dormitory room, sorority house or apartment. Furniture and accessories must be purchased or borrowed from home. Think of the valuable property found in a dormitory room or apartment-personal computers, audio/video consumer electronics, furniture, bicycle, etc.

1 The authors acknowledge with appreciation William R. Feldhaus (Georgia State University) as the principal author of this chapter.
From there one goes on to the real world, filled with the joys and sorrows of apartment life, and eventually, home ownership. By this stage, the amount and value of acquired property can be substantial. Property loss potential is now a significant concern. We will discuss property loss exposures further in Chapter A3.

**Liability Loss Exposures**

Individuals ignore the liability loss exposure at their peril. We live in a litigious society, with the threat of legal liability coming from numerous sources. Negligent operation of an automobile is the single greatest source of liability for individuals. Nothing else is even close to it. In addition, automobile ownership alone creates a liability loss potential. **Vicarious liability** is when one is legally responsible for the acts of others. Automobile owners may be vicariously liable for the negligent acts of others who operate the automobile with the owner's permission. This could be family members or friends.

Property ownership can also result in premises liability if someone is injured on one’s property and alleges that your negligence was the cause of the accident. Or what if one’s pet dog bites a neighbor’s child? These events can all lead to liability claims.

Finally, individuals who enter a profession face a professional liability loss exposure. Professions today are not limited to physicians and lawyers. Professional groups include architects, engineers, accountants, insurance agents, real estate agents, computer systems engineers and many others. Even the clergy have become targets of professional liability claims. The liability exposure is discussed in greater detail later in Chapter A4.

**Loss of Health**

Good health is a real asset. Poor health can have a dramatic economic impact on individuals and families as well as an adverse impact on the quality of life. Everyone hopes that most incidents of poor health are temporary in nature. Unfortunately, this is not always the case. Some medical impairments are chronic. Still others shorten life.

Poor health can result in two major economic consequences. First, medical expenses incurred in treating illness can be substantial. Medical technology today seems miraculous, yet all of this fabulous technology carries a cost. Serious medical problems can result in catastrophic medical expenses, far beyond the wealth and income capacity of most families.

Second, individual productivity can also be adversely affected by poor health. Income-producing family members may be unable to work. Family service providers may also be impaired, resulting in the need for child care or other services normally provided by the disabled family member. Chapter A5 discusses risks related to loss of health and management of these risks.

**Loss of Life**

Premature death has similar economic consequences as serious illness/disability, with the possible exception of medical expenses. With accidental events that result in death, the medical expenses at the time of death may be moderate. With long term illness that results in death, however, the medical expenses can be significant.

Individuals have differing perceptions of disability and death during their stages of life. College students and recent graduates tend to have a feeling of invincibility. They feel bulletproof. The idea of a severe disability or death is not on their radar screen as young people believe that their health risk is low. As time goes on, however, this perception changes! A friend or associate may incur a serious accident or illness. There may even be a friend who dies unexpectedly. Funerals aren't just for the elderly. Death visits the young and strong on occasion. This realization is a major influence on an individual's awakening interest in risk management and personal financial planning. Chapter A6 deals with risks related to loss of life.

**Retirement Income**

Individual interest in retirement income planning begins to appear with the thirty-something and forty-something age groups. Prior to that, the focus is generally on current consumption and careers. As financial planners will tell you, the sooner you begin to plan for your retirement income needs, the better. Unfortunately, individuals do not always heed that advice.

Retirement income planning examines both the anticipated income needs at retirement and the sources of income to meet those needs. A part of this exercise is estimating when a person desires to retire, and how does he or she define retirement? Does that mean no more income-related work, part-time work in the same field or a second career? This decision is quite personal to the retiree and family.
Once an estimate of the retirement income need is made, one then considers the possible sources of income during retirement. Social Security provides a benefit that generally falls far short of one's retirement income needs. Private sources of funding include employer pension plans, individual retirement plans and personal saving. Chapter A7 covers this topic in depth.

Financial Risks

Individuals encounter a number of financial risks. Investment risk is the primary type of financial risk. Investing is a common activity for many. Most individuals have limited savings for emergencies that may arise. Some save for holidays, college education, professional retraining or other special events. Retirement has become a major reason for saving and investing. The shift from traditional company-sponsored defined benefit pension plans with fixed payments upon retirement to employee-focused defined contribution and individual retirement plans has given individuals much more discretion over the management of these funds.

This investment freedom is a double-edged sword. The investment discretion offers individuals the opportunity to invest in favored investments and achieve greater returns. Of course, these advantages may not materialize. Individuals may not be capable of dealing with this new freedom and responsibility. Investment returns may fall far short of expectations.

A related problem is the concentration of investments. Some company retirement plans allow employees to invest in stock of the company. Some employees are attracted to investing in their employer's stock, viewing the company as a good investment or arising out of a sense of loyalty. Such a concentration of investments can expose individuals to default risk that can have a dramatic impact on expected retirement income. See Insight A1-1.

Insight A1-1 Need to Diversify Investment and Employment Risk

A major shift has occurred in retirement planning as many individual employees now exercise control over assets being accumulated for their retirement. The popular 401(k) retirement plan – and its equivalents – allows employees to make pre-tax contributions to an individual account, with investment options available that often includes the parent company stock. The employer often matches a portion of the employee's contribution, with company stock often used as the employer's contribution.

So what's the problem with this new approach to financing an employee's retirement? One significant potential problem is the lack of investment diversification of many of these 401(k) accounts. For example, Benartzi (2001) found that Coca-Cola employees allocated 76 percent of their discretionary contributions to Coca-Cola shares. A Hewitt Associates (2006) study of 300 companies also found that company stock comprised 21.9 percent of 401(k) assets. The share of company stock remains highest of all investment choices for several reasons, including that some employees merely do nothing and their employers use a default investment option (e.g., company stock) and that some employees believe they know more about the company than any other companies.

The problem here is that an employee's retirement fund is highly correlated to the employer's stock price. We know what happened to Enron employees and their retirement savings. To make matters worse, this investment risk is also highly correlated with employment risk. An employee's retirement fund and future employment are linked to the fortunes of the employer. Workers in such a situation could see their retirement funds and employment evaporate with the failure of an employer.

Reforms are on the way to lessen the impact of this problem. Employee restrictions on the sale of company stock in 401(k) plans have been reduced or eliminated. Employees are encouraged to diversify their holdings in their 401(k) accounts. Employers offer more diversified investment choices to their 401(k) participating employees. An individual's investment risk and employment risk cannot be eliminated; however, diversification is a good risk management tool to mitigate the loss potential.

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Strategic Risks

Some losses are caused by events that are beyond our ability to influence or control. Economic and political events can cause damage or loss to property value. For example, inflation, while it is not affecting the property itself, influences property value. Consumer preference or technological change can render property obsolete, such as with electronics and computer equipment. Note that the physical condition of the property may not change, just its value. Political events can also cause a reduction in property value. The declaration of war, for example, will reduce property value in a war zone. War or warlike activities can cause extensive property damage as was seen in the World Trade Center attack on September 11, 2001. Countries may nationalize private property, resulting in a loss to investors.

Financial risks and strategic risks originate with events and conditions external to the individual. We are powerless to influence causality directly or indirectly. We can, however, take actions to minimize the financial impact of these risks. Inflation can be mitigated through investments that tend to mirror the economy and adjust in value with changes in price levels. The technical obsolescence problem can be addressed by not owning the type of property subject to this exposure, or not spending much or depending upon the technology to an important extent. Political risk may be avoided by limiting investment and personal travel in regions prone to political instability.

Another strategic risk is the loss of employment due to a decline in demand for particular labor skills. Technology again may render some people's skills obsolete. The globalization of business has meant that some businesses have moved manufacturing to other parts of the world where labor costs are lower. Keeping one's skills current is a wise practice. In some instances, retraining for a new career may be necessary.

RISK ASSESSMENT

Risk management begins with risk assessment - the identification and analysis of potential risks. Ideally, risk assessment should be both comprehensive and ongoing. A comprehensive risk assessment includes examining each of the classes of risk – operational risk, financial risk, and strategic risk. For individuals and families, the operational risk category tends to dominate. Financial risks for individuals include the investment risk related to individual retirement plans and personal savings. Strategic risk is more related to business situations, but individuals may encounter strategic risk with job obsolescence or the economic demise of a local business community.

Risk assessment should be an ongoing activity because both individuals and their environment are changing. Risk assessment needs to be a dynamic process that senses these changes, leading to any necessary adjustments in managing one's risk portfolio. For example, when a single person marries and has children, the person's risk profile changes dramatically. The continuing acquisition of property adds to one's inventory of assets. New statutes and case law alter the legal environment. All of these risk changes need to be considered in risk assessment over a lifetime.

A risk assessment technique now utilized in a business context is risk mapping, where a grid based on loss frequency and loss severity is used to plot an organization's exposures to loss. (Refer also to the discussion on risk mapping in enterprise risk management in Chapter 12.) Typically, a brainstorming session is held to identify the various exposures to loss, along with some discussion as to the expected frequency and severity of loss to arrive at a consensus regarding the organization's loss portfolio. While this technique may not have practical application for individuals and families, it is instructional to assess individual loss exposures using visual imagery.

As depicted in Figure A1-1, a risk map is a grid or matrix that plots loss frequency and loss severity. Loss frequency is a measure of the likelihood of occurrence of a particular loss event. We can categorize the likelihood as rare, occasional or frequent. A rare loss event is one that is possible but not likely to occur (e.g., a typical house being flooded.) An occasional event might be something that occurs once every 5-10 years, such as minor or major damage to your automobile. Finally, a frequent loss event would happen on a regular basis (e.g., mild illness such as cough, cold and headache).

Loss severity refers to the potential financial consequences of a loss event. Three loss severity descriptors are used with the risk map – low, moderate and significant (catastrophic). A low severity loss is inconsequential in nature. The loss of this textbook may be considered a low severity loss for students (although the rising prices of textbooks may take this example to the next severity level for some). A moderate severity loss has some financial consequences to the individual. A tree limb falling on your car would result in repair costs and loss of use of the vehicle. That can cause some financial hardship.
Finally, a catastrophic loss potential would have severe financial consequences. Total loss of an expensive automobile or house would meet the criteria for a catastrophic loss. Of course, severity is a relative concept. The destruction of his Bugatti Veyron – the world’s most expensive car at US$1.5 million or more – to Carlos Slim Helú, one of the world’s three wealthiest men as of February 2008, would fall in the moderate (or even low) category whereas the same loss to a person who was moderately wealthy could be catastrophic.

**Operational Risks**

The following discussion offers an overview of the application of the risk management process to individuals using Figure A1-1 to illustrate a few examples of operational, financial and strategic risks.

Figure A1-1 has been partitioned into zones (A through I). Zone A includes loss exposures that have both a low expected frequency and severity of loss. In other words, rare loss events with insignificant financial impact fall into this zone. The loss of this textbook (P1) is an example. The loss of your entire backpack that included several textbooks and class notebooks (P2) might be an example of Zone B risks. Finally, the total loss of personal property in one’s dorm room is an unlikely event having catastrophic consequences. This property loss exposure example (P3) falls into Zone C.

For individuals, most liability exposures are rare events, yet have a catastrophic loss potential. An actual loss may not always be significant, yet the potential for a significant financial consequence always exists. The liability arising from the ownership or use of an automobile (L1) is a Zone C exposure.

Health exposures vary as to the expected frequency and severity of loss. Routine physical ailments such as sore throats, colds, headaches and upset stomachs are frequent events for most people. Fortunately, the financial consequences of these ailments are low, putting this class of health exposures (H1) in Zone G. If an individual has a chronic problem, however, such as asthma, the frequency rises, with a low to moderate financial consequence (H2). This would put the loss exposure between Zones G and H. Finally, some health problems can be catastrophic in nature, such as cancer or heart disease. These loss potentials (H3) fall into Zone C or F depending on the particular malady and the individual’s predisposition for the disease.

The possibility of death as a loss potential varies considerably depending on a number of factors. For a college student with no dependents, the premature death loss (D1) might be considered in zone A or B. Contrast this with a 35 year old individual with a spouse and three young children. The chance of loss would be slightly greater than that for the college student; however, the potential severity puts this loss exposure
(D2) in Zone C. Finally, a retired person at age 75 certainly has a higher probability of dying, yet the negative financial consequences on others ordinarily are low to moderate (D3). This exposure might fall into Zone D or E.

Financial Risks

Financial risks of individuals are a function of an individual's chosen risk profile. The investment risk related to retirement savings or general investment can vary considerably. For example, investing in common stock (F1) might be classified in Zone B, with a rare frequency and moderate financial impact. More risk-averse individuals may elect to invest in U.S. Treasury Bills (F2), often considered to be risk free. Of course, one must consider the trade-off between the financial risk of the investment portfolio versus the expected return. Investors desiring a higher return must be willing to accept more investment risk.

Strategic Risks

Strategic risks vary with an individual's circumstances, although the risk associated with broad economic change would be similar for almost everyone. In the U.S., several economic circuit-breakers exist to mitigate both the likelihood and impact of major economic downturns. We are unlikely to see another Great Depression. Recession, yes, but not prolonged depression! This loss exposure (S1) falls into Zone E.

Unemployment has two dimensions: strategic and operational. An individual's employment risk is a function of his or her type of work and skills. Some occupations seem immune to obsolescence, such as teaching. Other occupations may be more sensitive to changes in technology or trade. There's not much of a demand today for typewriter repair specialists. Retraining may be possible for a related occupational field, such as working with printers and other computer devices. This loss exposure (S2) would likely be classified in Zone E.

LOSS CONTROL

Loss control incorporates those techniques intended to reduce the frequency or mitigate the severity of loss. Whenever loss control is considered, careful consideration should be accorded to the expected benefits. This cost-benefit analysis is necessary in making sound economic decisions. The only exception to this rule is when the risk control activity is not optional, as where loss control may be mandated by law or contract.

Avoidance

In most instances, avoidance is the last resort for controlling losses. Nothing else is practical. Avoidance can be refusing to be exposed to certain types of loss events. Those who fear flying can avoid all possibility of such harm by not flying. To avoid flying, John Madden, the former professional football coach turned television announcer, has his famous luxury bus that takes him from site to site to cover National Football League (NFL) games. Madden is not avoiding the transportation risk, just the risk associated with one form of transportation. Of course, the objective likelihood of a bus accident may be greater than that of an airline accident. As explained in Chapter 2, however, individual decision-making does not always follow the rational expected utility model. Subjective perceptions of risk greatly influence individual risk decisions.

Avoidance may also take the form of discontinuing a former activity that contributes to a loss. The smoking of tobacco is linked to several health problems, including a rise in the possibility of premature death. Discontinuing smoking can have a significant ameliorating effect on these elevated loss potentials. The same is true of an elderly person with impaired vision or hearing. Giving up automobile driving can be an unpleasant choice with its attendant loss of freedom, but it may be the only solution to a hazardous situation for the elderly person and the public.

Recall that no loss exposures in Figure A1-2 were classified as having both a high expected frequency and severity. But if there were such a loss exposure it would be a good candidate for avoidance. The upper left sector of Figure A1-2 illustrates this concept.
Loss Prevention

Avoidance as a loss control technique has limited application. Risk is an integral part of everyday life. From a practical standpoint, it is impossible to avoid most risk situations. Fortunately, other loss control techniques can be utilized to address those risks than cannot be avoided.

A more practical loss control technique is loss prevention where the focus is on reducing the likelihood of a loss occurring. If the expected frequency of loss is high, an appropriate loss control response is action aimed at reducing the loss frequency. Referring to Figure A1-2, the region where expected loss frequency is high is the upper left sector of the matrix. Individual loss exposures in this region are ideal candidates for loss prevention activities. For example, the previous loss exposures classified for this region could be improved using the following loss prevention techniques:

- Minor health problems: exercise and proper diet, plus regular immunization for ailments such as the flu.
- Chronic medical problems: routine exercise, proper nutrition and medication.

Loss Reduction

When the potential severity of loss poses a concern, loss reduction activities are appropriate to mitigate the loss. Those types of exposures, located in the lower-right region of Figure A1-2, are good candidates for loss reduction efforts that attempt to shift the loss consequences to the left. Some examples of loss reduction techniques that are appropriate to these loss exposure examples shown in Figure A1-1 are mentioned below.

- The total loss of property in a dorm room: devices such as smoke alarms and sprinklers. Properly operating sprinkler systems virtually eliminate the chance of a total loss.
- Ownership and operation of automobiles: compliance with all driving laws and regulations; defensive driving.
- Serious health risks that cannot be avoided: exercise and early detection of problems through medical screening.
- Shift to greater responsibility on the individual in making investment decisions with retirement funds: portfolio diversification.
Loss Analysis

We made a point earlier that the application of risk control techniques has to be evaluated in terms of the potential benefits of the efforts versus the anticipated costs. If the benefits of loss control clearly exceed the costs, loss control makes economic sense. Assume that Figure A1-3 represents the loss distribution for annual physical damage loss to your automobile. This loss distribution is presented as a probability distribution, which identifies all possible outcomes as well as the probability of each outcome occurring. For simplicity, assume each possible outcome is a discrete loss amount.

Several measures of central tendency are used to describe the clustering of the possible outcomes. The mode is the single, most likely outcome of a distribution. In this example, the mode is $0, or no loss. The mean is the arithmetic average of a distribution. With a loss distribution, the mean is calculated by taking each possible outcome and multiplying that amount by the probability of that outcome taking place. Table A1-1 shows that each outcome is weighted by its likelihood of occurrence. The sum of these weighted values is $1,000, the mean of the distribution.

Table A1-1  Impact of Loss Reduction

<table>
<thead>
<tr>
<th>Outcome</th>
<th>No Loss Reduction</th>
<th>Loss Reduction</th>
<th>Probability</th>
<th>Expected Value</th>
<th>Probability</th>
<th>Expected Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Probability</td>
<td>(1) x (2a)</td>
<td>(2b)</td>
<td>(1) x (2b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$0</td>
<td>.60</td>
<td>0</td>
<td>.60</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>.20</td>
<td>100</td>
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<td>20,000</td>
<td>.01</td>
<td>200</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.00</td>
<td>$1,000</td>
<td>1.00</td>
<td>$700</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How would this loss distribution be affected if loss reduction was introduced that reduced the likelihood of a large loss? For example, assume a loss control action was available that eliminated the chances of $10,000 and $20,000 losses. The revised probability distribution is shown in Table A1-1, with a reduced mean value of $700. The question would then be "is the $300 annual reduction in the expected value of loss sufficient to justify the cost of the loss control action?" This simple example forms the basis of all individual and business decision-making regarding the implementation of loss control techniques.

**RISK FINANCING**

Losses can never be eliminated in their entirety. Losses are going to happen. Risk financing addresses the question as to the source of funds available for these losses – to replace or repair property, to provide legal defense and any judgments or awards, to pay medical bills and lost wages, and to offset the financial effects of loss of life.

**Risk Financing Options**

Numerous risk financing options are available to individuals. These options can be classified into three groups: (1) risk retention, (2) risk transfer and (3) risk sharing.

You may think of risk financing as a continuum of options, with the end points of the continuum being risk retention and risk transfer as shown in Figure A1-4. **Risk retention** is the internalization of loss costs by the individual or family. Retained losses are financed out of one's wealth or income. In most cases, the decision to retain a loss exposure is a conscious decision. However, it may be the default option if an individual is unaware of the loss exposure or the ability to transfer the loss potential is not available or affordable.

For example, if you decide to completely retain the financial consequences of a loss, you are at the left endpoint of Figure A1-4. The expected cost of this risk financing strategy is low, given the efficiency of paying for losses directly. Unfortunately, the potential cost variability of a complete retention strategy is high. If you elect not to insure your furniture or clothing in your apartment, the cost of that risk financing strategy is low. The complete destruction of your apartment and all your contents, however, would be catastrophic.

The other end of the risk financing continuum is **risk transfer**, where the financial responsibility of loss is shifted to another party. This transfer often is accomplished through insurance. The expected cost and variability of risk transfer is the mirror image of risk retention. The expected cost of insurance is high due to the expense loadings being added to the underlying loss costs in computing the premium. On the other hand, the cost variability of a fixed premium insurance option is low. Insurance represents a major expenditure for individuals and families.

![Figure A1-4 Risk Financing Continuum](image-url)
Risk sharing is a blending of risk retention and risk transfer to take advantage of the positive attributes of each. An insurance program with a deductible or other cost sharing feature is an example of risk sharing. Most risk financing strategies fall into the risk sharing category, where some reasonable amount of retention is combined with risk transfer to provide large loss protection.

Figure A1-5 illustrates the regions on a risk map where these risk financing options are most utilized. Risk retention makes sense when the loss event is rare and the potential financial impact is low. Risk transfer is well suited for low frequency loss events where the financial impact is catastrophic. Finally, risk sharing is commonly used with frequently occurring losses where the individual loss amounts are relatively low.

### Decision Factors

Individuals consider many factors in making risk financing decisions. These factors include:

- External constraints
- Expected cost and variability
- Financial capacity
- Risk aversion

**External Constraints**

External constraints may limit an individual's risk financing choice to the purchase of insurance. Most states mandate that automobile owners purchase automobile liability insurance. Some business owners may qualify as self-insurers, but individuals do not have that option.

Another example of an external constraint is the requirement by creditors that insurance be purchased to protect collateral. When creditors provide loans for the purchase of homes, cars or boats, they require that the debtors purchase property insurance. Proof of insurance is required to close the loans.
Expected Cost and Variability

The expected value and the variability of cost of various risk financing options are important considerations. For example, Table A1-1 depicts the loss distribution for annual automobile damage that was provided in Figure A1-3. Assume three risk financing options are available for this loss: complete retention, full insurance coverage, or a $500 per loss deductible. The expected values of the three options and their attendant insurance costs are shown in Table A1-2.

The total retention option has the lowest expected cost ($1,000). However, it also presents the greatest cost variability. Losses in a given year can range from nothing to $20,000! The $500 deductible option has the next lowest expected cost, with the worst case scenario being $1,600 ($1,100 premium + $500 deductible). The full coverage option has the highest expected cost, yet there is absolute certainty that the insured's loss will equal the $1,400 premium.

Figure A1-6 presents the relative costs of the three options under different loss scenarios. The cost to the individual is on the vertical axis and the amount of loss is on the horizontal axis. If the most likely outcome occurs (no loss) the full insurance coverage option is the most costly at $1,400, followed by the $500 deductible option at $1,000 and retention at no cost. If a loss occurs, however, the cost to the individual changes. At a $500 loss level, the full insurance coverage option remains $1,400 with the $500 deductible option costing the individual $1,600 ($1,100 premium + $500 deductible). The retention option equals the amount of the loss. With higher levels of actual loss, the cost to the individual of the two insurance options remains static at $1,400 for full coverage and $1,600 for the $500 deductible. The cost to the individual of a retention option, of course, increases with the amount of the loss. The question to be answered is as follows: even though the probability of a large loss is low, can the individual afford to retain a loss of $5,000, $10,000 or $20,000?

Financial Capacity

The financial capacity to take on the responsibility of a loss is always a risk financing consideration. The greater an individual's wealth and income, the greater the capacity to retain the financial consequences of loss. Individuals with limited wealth and income have correspondingly less ability to retain risk. This factor is central to individual risk management decisions.

### Table A1-2 Comparison of Risk Financing Options

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Probability</th>
<th>Retention</th>
<th></th>
<th>$500 Deductible</th>
<th></th>
<th>Full Coverage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Insured Share of Loss</td>
<td>Expected Cost</td>
<td>Insured Share of Loss</td>
<td>Expected Cost</td>
<td>Insured Share of Loss</td>
<td>Expected Cost</td>
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<td></td>
<td></td>
<td>1,000</td>
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### Cost Summary

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<tr>
<th>Option</th>
<th>Insured's Share of Loss</th>
<th>Insurance Premium</th>
<th>Total Cost</th>
</tr>
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<tbody>
<tr>
<td>Retention</td>
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<tr>
<td>$500 Deductible</td>
<td>$200</td>
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</tr>
<tr>
<td>Full Coverage</td>
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The potential severity of many individual loss exposures leads most individuals to risk transfer. Many of the loss exposures plotted in Figure A1-1 are located in the lower right region of the map. They are the exposures that are not likely to occur; yet if they do, the consequences can be catastrophic. This realization results in the purchase of insurance as a means to transfer the financial consequences of loss.

**Risk Aversion**

Finally, individuals differ in their appetite for risk. Some individuals may have the financial capacity to retain risk, yet lack the temperament to be comfortable doing so. Risk financing decisions are not a purely analytical exercise.

**DISCUSSION QUESTIONS**

1. Identify and briefly describe three types of operational risk for individuals.

2. How would you classify financial risks in terms of expected loss frequency and severity?

3. Compare strategic risks for individuals compared with business organizations.

4. Recommend a loss control technique for each of the following individual loss exposures:
   a. Theft of your automobile
   b. Injury while skydiving
   c. Poor health due to influenza
   d. Unemployment
   e. Liability for injury caused by your pet dog

5. What risk financing option would you select for each of the following individual loss exposures:
   a. Damage to your 1990 Honda Civic
   b. Damage to the contents of your apartment
   c. Poor health while in college
d. Premature death while in college  
e. Liability for the ownership or operation of your automobile

6. Compare the personal insurance expenditures of the following individuals.

   a. College student  
   b. Parent with three children  
   c. Retired person

7. What factors should be considered in selecting an appropriate risk financing option?
Chapter A2

Legal Aspects of Insurance

INTRODUCTION

Don't expect to see any insurance policies appearing on the New York Times best-seller's list. Most insurance buyers (and students) do not look forward to reading their insurance policies. In fact, they may be hard pressed just to locate their policies. Should insurance buyers be more familiar with their policies? Yes, they should. In their defense, however, it has not always been easy for insurance buyers to understand what they purchased. The “fine print” and legalistic policy language used in the past certainly would not be considered "user friendly." In many insurance markets around the world, the fine print problem has been eliminated and many policies today use language considered "easy to read" or "insured friendly." Even with these improvements, however, knowledge of insurance contract content is still low. The reader may recall the discussion of information asymmetry throughout this book.

This chapter is an extension of Chapter 10 (the Legal Environment) and examines the legal aspects of insurance. It begins with key legal principles that serve as the foundation for insurance contracts. It then explores some special characteristics of insurance contracts and their impact on the contracting parties. Finally, it discusses the insurance contract itself, including the structure, common policy provisions, and the contracting process.

LEGAL PRINCIPLES RELATING TO INSURANCE

Insurance policies are legal contracts that grant certain rights and impose certain duties on the contracting parties. As legal instruments, insurance contracts must adhere to a body of controlling law and legal principles that have evolved over many decades. This section introduces principles of indemnity, insurable interest, and utmost good faith, including some of the common policy provisions designed to reinforce them.

Indemnity

Insurance is designed to provide a financial payment upon the occurrence of certain events. The loss payment should be appropriate to the loss sustained. The principle of indemnity holds that the insured should be restored approximately to the same financial position that existed prior to the loss. In other words, the insured should not gain from the occurrence of a covered loss. If the insured could profit from a loss, a moral hazard would be created. The raison d'être for the indemnity principle is to minimize moral hazard.

Nonlife Insurance

As discussed in Chapter 22, the principle of indemnity is fundamental to most types of nonlife insurance. With property insurance, the traditional measure of loss is actual cash value (ACV) – the cost today (not the original purchase price) to replace or repair the damaged property less the value of physical depreciation and obsolescence. While ACV valuation in property insurance supports the principle of indemnity, some insureds desire coverage on a replacement cost basis, where there is no deduction for depreciation from the cost today. The demand for replacement cost coverage in property insurance has been satisfied, even though it results in a technical violation in the principle of indemnity.

The authors acknowledge with appreciation William R. Feldhaus (Georgia State University) as the principal author of this chapter.
Property insurers believe that they can control for the moral hazard problem associated with replacement cost coverage through product design and risk selection. First, to collect on a replacement cost basis, the insured must actually repair or replace the damaged property. Unlike the ACV settlement, the insured cannot receive a replacement cost settlement without actual replacement. Second, insurers generally do not offer replacement cost coverage if there is a significant spread between the actual cash value and replacement value of the property. For example, insurers do not provide replacement cost coverage for older buildings where the physical depreciation is extensive.

Another possible exception to the indemnity principle arises with valued policies. A valued policy pays the full policy amount for a total loss, regardless of the actual value of the loss. As discussed below, life insurance policies are valued policies. Additionally, valued property policies are often used for insuring property that is difficult to value using traditional valuation methods. For example, it could be difficult for the insured and insurer to agree after a loss as to the value of a destroyed or stolen piece of fine art. A valued policy addresses this difficulty in advance by the parties having agreed to the artwork's value. This valuation provision may result in a technical violation of the indemnity principle, but moral hazard problems are minimized by having the insurer agree to a value that approximates the insured object's actual value.

Some states in the U.S. have "valued policy laws" that require all property insurers to pay the full policy amount if a total loss occurs to a structure from certain specified perils such as fire, lightning or windstorm. These laws were enacted because of consumer complaints that property insurance policies with actual cash value provisions failed to provide full settlements for total losses. Under an actual cash value settlement, if the ACV of the property at the time of loss were less than the policy amount, the insured would have been paying for some proportion of uncollectible insurance. From the insured's perspective, this result was unacceptable, even though, from the insurers' perspectives, the outcome was fair. The insured, they argue, should not have purchased excessive insurance. These statutes effectively place the burden on insurers to be mindful of over-insurance and associated moral hazard. Property insurers must take care that the policy limits bear a reasonable relationship to the property's insurable value.

The principle of indemnity arises when there are multiple sources of recovery for a loss. A significant moral hazard problem would exist if a claimant could collect from each source independent of the others. Property/liability insurance policies address this situation through exclusions and other insurance provisions that define how a loss will be shared among insurers if multiple policies apply to the same loss. In property insurance, the loss sharing is usually on a pro rata basis, where each insurer contributes a share of the loss equal to the ratio of its policy limit to the total limits.

When two or more liability insurance policies provide coverage for a loss, the loss sharing is usually accomplished by one policy becoming primary and the others as excess (see Figure A2-1). A liability insurance policy designated as primary is responsible for a liability claim up to its limits of liability. If a liability claim exceeds the primary policy's limit, the excess policy assumes the additional amount of the claim up to its limits of liability.

![Diagram of primary and excess liability insurance](Figure A2-1 Primary and Excess Liability Insurance)
Insight A2-1  Reinforcing the Principle of Indemnity

What if Kristen were involved in an automobile accident where the other driver was clearly at fault? If she has property damage coverage for her vehicle under her automobile policy, she has two possible sources of recovery. She could elect to have the negligent driver or his automobile insurer pay for the damage, or she could seek recovery under her own automobile policy. She cannot do both, however, as that would violate the principle of indemnity. The subrogation provision in Kristen's automobile policy transfers to her insurer any legal rights she would have against a third party once her insurer has paid for a loss. Most forms of property insurance contain a subrogation provision.

For example, if Lindsay borrowed Ashley's car to run an errand, two automobile liability policies would apply if an accident occurred. Lindsay's automobile policy would cover her while driving a borrowed automobile, while Ashley's automobile policy would also cover Lindsay while operating Ashley's vehicle. In such situations, personal automobile policies designate the policy on the vehicle (Ashley's policy) as the primary coverage with the driver's policy (Lindsay's policy) treated as excess coverage. Again, the principle of indemnity is preserved through policy provisions that allocate the responsibility for loss among the possible sources of recovery.

Another policy provision that reinforces the principle of indemnity is the subrogation provision (see Insight A2-1). If Kristen sustains bodily injury or property damage due to the negligence of another, the injured party has two possible sources of recovery. She could collect from her own insurance coverage, or she could seek recovery from the negligent party. Securing reimbursement from both sources, however, would allow for what lawyers call unjust enrichment and would violate the indemnity principle.

A subrogation provision in the policy states that any legal rights that the injured insured has against the wrongdoer is transferred to the insurer once it pays for the loss. The insurer could then pursue a subrogation action against the negligent party to recover what it paid to the insured.

Life Insurance

Life insurance contracts are valued policies. The policy amount paid does not necessarily match the economic loss to the beneficiary because of the insured's death (e.g., loss of future income). Life insurance policies do not contain other insurance provisions. Life insurance policies pay without regard to the existence of any other insurance contracts.

As with valued property insurance policies, the insurer minimizes moral hazard at the time the policy is issued. It does this by limiting the requested insurance to an amount that bears a reasonable relationship to the economic loss that the beneficiary would suffer because of the insured's death. In deciding whether the requested insurance amount is reasonable, the insurer takes into consideration existing life insurance, the insured's income, and a host of other factors.

Health Insurance

The principle of indemnity applies to medical expense, long term care, and disability income insurance. Health insurance in the U.S. is provided primarily through group programs, with the employer-employee group being the most common. These programs either provide reimbursement for actual expenses incurred or provide the medical service and the financing of those services.

A type of other insurance provision, called a coordination of benefits (COB) provision, allocates reimbursement among insurers if the insured is covered by more than one medical expense insurance program. For example, a working person covered by an employer's group medical program might also be an insured on a spouse's group program. Both group plans typically contain a COB provision that provides that the primary policy is that of the employee's employer, with the insurer of the spouse being excess. Individually issued health insurance policies usually do not have coordination of benefits provisions, leading to the possibility of multiple payments that can lead to moral hazard problems. In deciding whether to issue an individual health insurance policy, the health insurer takes into consideration existing health insurance coverage.

Long term care (LTC) insurance typically provides for set benefit payments (i.e., they are valued policies) if the insured is unable to engage in certain activities of daily living. The payment amount is determined at policy issuance, based on estimated need. Such policies usually do not coordinate with other LTC payments.
Disability income insurance is issued on a valued policy basis, whether group or individual coverage. A monthly benefit amount is paid in the event of disablement. The benefit typically is less than the insured's wage, such as 50 to 70 percent of the wage. Disability policies usually do not coordinate with other disability benefits.

**Insurable Interest**

The principle of **insurable interest** holds that an insured must have a financial interest in the loss event that is the subject of the insurance contract for the policy to be legally enforceable. If insurable interest were not required, insurance would be wagering, where anyone could speculate on a particular loss event. The insurable interest requirement reinforces the principle of indemnity and reduces moral hazard. This principle is relevant to all types of insurance. Differences exist, however, as to what constitutes an insurable interest and when it must exist.

**Nonlife Insurance**

The ownership of property is the most obvious source of insurable interest in property insurance. The ownership of a home, furniture, clothing or an automobile creates an insurable interest in the damage or loss of this property.

Insurable interest relating to property damage, however, is not limited to ownership interests. Secured creditors such as banks and credit unions also have an insurable interest in protecting their collateral. They require that their interests be protected by being named in the debtor's insurance policy as the mortgagee or lien holder. Special provisions in property insurance policies describe the protection afforded these creditors.

A bailment can also create an insurable interest. A **bailment** is a temporary change in possession of property but with no change in ownership. For example, a bailment is created when you borrow a friend's car. You have temporary possession of the car, but vehicle ownership has not changed. While the automobile is in your possession, you have an insurable interest in that bailed property that is protected through your own automobile insurance.

Liability insurance is designed to protect against liability that may arise from certain specified activities. Liability, however, may not be limited to the individual who is directly involved in the activities that give rise to the liability. For example, some people occasionally use their personal automobile for the benefit of their employers. In such instances, the employee as well as the employer could be legally liable if an accident occurs. The employer has an insurable interest in such a situation, and can purchase liability insurance for this exposure, or request that the firm be named as an additional insured on the employee's automobile insurance policy.

Insurable interest in property and liability insurance must exist at the time of loss. Usually, insurable interest also exists at policy inception. It is at the time of loss, however, when the existence and extent of insurable interest is important. For example, assume a person purchases a dwelling for $200,000 and insures the dwelling for the purchase price. At a later date, this person sells a 25 percent interest in the dwelling but makes no change to the property insurance policy. If the insured dwelling were then destroyed by fire, the insurer would limit recovery to $150,000, the extent of the insured's insurable interest at the time of loss.

**Life Insurance**

In most instances, individuals purchase life insurance on their own lives to provide financial protection for their beneficiaries. Individuals have an unlimited insurable interest in their own lives; that is, they may legally purchase as much insurance as they wish on themselves. As mentioned earlier, however, insurers limit the amount that they will issue to that which bears a reasonable relationship to the economic loss occasioned by the individual's death.

A person also may have an insurable interest in the life of another person. Thus, spouses can purchase life insurance on each other. Insurable interest questions arise for domestic partners, with some life insurers recognizing a valid insurable interest and providing life insurance protection (see Insight A2-2).

Parents can insure the lives of their children and vice versa. More distant family relationships typically do not support an insurable interest. Outside of close family relationships, there must be some demonstrated financial interest in the continued life of another person for insurable interest to exist. You cannot purchase life insurance on your friend's life unless there is some financial loss potential. Violation of the insurable interest requirement makes life insurance into a wagering contract where one person could speculate (and possibly hasten!) the death of the insured person.
Insight A2-2 Insurable Interest for Domestic Partners?

Close family members such as (a) husband and wife and (b) parents and children are deemed to have an insurable interest by the very nature of their relationship. There is usually no need to demonstrate financial dependence for an insurable interest to exist. How would this apply to domestic partners that may have both a significant personal and financial relationship with each other, yet not the bonds of marriage? A few life insurers have taken the lead and designed policies to fit the circumstances.

The Teachers Insurance and Annuity Association (TIAA) in the U.S. markets life, annuity and long term care insurance policies for domestic partners. It does not require any proof of the domestic partner relationship. The insurer relies on the good faith of its applicants for coverage. The policy defines domestic partners as two adults: (1) who are not related by blood; (2) who have lived together continuously for at least six months and plan to do so permanently; (3) who are mutually responsible for their common welfare; and (4) who maintain no other domestic partnership or marriage.

In contrast to property insurance, the extent of insurable interest is life insurance usually is not subject to precise measurement. When life insurance is used to secure a debt, however, the extent of insurable interest is measurable.

Insight A2-3 Viatical Settlements (and Death Bonds)

The insurable interest requirement does not preclude the transfer of a life insurance policy to someone with no insurable interest after the policy has been properly issued. Such transfers may be appropriate, for example, in terminal illness situations where the current cash needs of insureds may outweigh the financial needs at time of or after death. An insured facing such a situation may seek a viatical settlement where a third party pays cash now for the right to receive the policy proceeds upon the death of the insured. The cash settlement is a function of the discounted value of the death benefit.

While there is nothing inherently wrong with viatical settlements, the concept has been abused. First, terminally ill insureds often are in a poor bargaining position with a viatical settlement company. In computing the settlement, the viatical company may extend the expected date of death or use an unreasonably high discount rate, although recent regulation has somewhat ameliorated these problems. Both have the effect of reducing the settlement value.

Another abuse involving viatical settlements is referred to as “wet paper.” The term refers to a newly issued life insurance policy procured with the intent to sell it, usually two years after issuance. Usually, the purchase of such policies is at the instigation of a fraudulent agent or investor/promoters with no insurable interest in the proposed insured. Because of this lack of insurable interest, the policy typically is applied for by someone, such as the insured, who has a clear insurable interest, and who intends to sell the policy. Often investor/promoters will finance the premiums for two years, after which the policyholder usually is effectively forced to sell the policy. Such policies are commonly referred to as stranger-initiated life insurance or STOLI. “Cleansheeting” is a variation of such acquisitions wherein an individual with pre-existing medical problems applies for life insurance, concealing or misrepresenting the facts to induce the life insurer to issue the policy. Once the policy is issued, the insured transfers ownership of the policy to a settlement company. In some instances of cleansheeting, an insurance agent or settlement broker is involved with the applicant in the fraud. Life insurers and insurance regulators have taken steps to try to deal with this fraudulent activity.

Another form of abuse involves the solicitation of investors by viatical companies. Seniors are often targeted as investors, with offers of low risk and high returns. One elderly couple invested $30,000 - their life savings - in a viatical company that promised a 43 percent return after three years. Unfortunately, the viatical company went bankrupt, and the couple lost its entire investment.

Several U.S. states have begun to regulate viatical settlement companies. The National Association of Insurance Commissioners (NAIC) developed the Viatical Settlements Model Act in 2001. Self regulation is also observed. In 2007, for example, investment banks established the Institutional Life Market Association to promote best practices in life settlements and other financial services products.

Death bonds, also known as “life settlement-backed securities,” can be viewed as an extension of the viatical settlement market. Death bonds refer to securities backed by a pool of transferable life insurance policies, purchased and repackaged into bonds often by life settlement providers, and sold to investors in capital markets. Other parties involved in this type of securitization include a special purpose vehicle, investment bank (underwriter), rating agency, law firm, trust and accounting company.
Insurable interest in life insurance must exist at the inception of the policy, and, with some exceptions, need not exist at the time of loss. In most jurisdictions, the insurable interest must exist between the insured and the policyholder (and sometimes, the beneficiary). Thus, if a wife purchases and is owner of a life insurance policy on her husband, the insurable interest requirement is satisfied. If they later divorce and the husband dies, the policy proceeds would be paid to her (assuming, of course, that she had kept the policy in force), even if there were no longer any financial obligations between them.

The transfer of a policyholder’s interest in a life insurance policy to another person does not require insurable interest. For example, a policyholder can transfer ownership of her policy to a charity which would name itself as beneficiary. Insureds with a terminal illness may elect to transfer policy rights to another party in exchange for an immediate cash payment. Some viatical settlements (see Insight A2-3) are controversial.

Utmost Good Faith

The principle of utmost good faith imposes a higher degree of honesty on the parties to an insurance contract than what is expected from parties to other legal contracts. This principle flows from the information asymmetry problem inherent with insurance contracts. Insurers need certain information from applicants to properly underwrite the risk. The insurance application contains several questions relevant to the underwriting decision. Insurers expect that these questions are answered truthfully, and rely on this information in determining the terms, conditions, and pricing of insurance contracts.

The utmost good faith principle evolved in an era when it was difficult if not impossible for insurers to verify the information provided by applicants. Communication systems and information networks were crude, often leaving insurers with only the information provided directly by the applicant. This reliance logically led to the expectation of utmost good faith. Contrast this environment, however, with the accessibility of information that exists today. Insurers now have the opportunity to access information on a global basis. This radical change in the information environment has had a dramatic impact on the utmost good faith principle, resulting in a more balanced application. For example, good faith is expected from both the proposed insured and the insurer. Invalid information provided by the insured could adversely impact coverage. Likewise, improper action or treatment by an insurer may also constitute bad faith, leading to damages being assessed against the insurer. There are three major legal concepts related to this principle: misrepresentations, concealment and warranty.

Misrepresentations

Representations are the responses made by an applicant in procuring insurance. The information requested by the insurer is considered essential to properly underwrite the risk. A misrepresentation occurs if that information is incorrect. So what is the significance of a misrepresentation by the applicant?

If the erroneous information is considered material and was relied on by the insurer, the insurance contract is voidable at the insurer's option. Information is material if, had the insurer been provided accurate and complete information, the application would have been declined or the policy issued on less favorable terms or at a higher price. Usually the intent of the applicant is not considered. Both innocent and intentional misrepresentations are often treated the same.

Concealment

A concealment is the intentional failure to disclose material information to the insurer. The legal impact of concealment historically has been the same as with a misrepresentation: the insurance contract can be voidable at the option of the insurer. In some jurisdictions this rule continues, while in others, the doctrine of concealment is increasingly viewed with disfavor by the courts; they have ruled that insurers generally may not avail themselves of this defense because they had an opportunity to ask whatever questions of the insured and failed to do so. They say that it is unreasonable to expect that the insured knows what material is.

Warranty

A warranty is a statement of fact or promise that must be true for the insurer to be liable under the insurance contract. Warranties are usually made as part of the application process and become an integral part of the policy. For example, an owner of a jewelry store may warrant that all jewelry in display windows is removed and kept in a locked safe during non-business hours. The storeowner may also warrant that a certain class of safe or alarm system is utilized. If this warranted condition is not present, there is no coverage. Warranties in insurance contracts should be carefully reviewed since a violation has such harsh
consequences to the insured. Fortunately, warranties are never used with insurance contracts designed for individuals.

INSURANCE CONTRACTS

Insurance contracts have some special characteristics that deserve mention. Those characteristics help to explain the contractual relationship between insurer and insured. We briefly describe them below.

- Insurance is considered an aleatory contract in that the values exchanged by the contracting parties may not seem equal, since one party's promise is contingent in nature. Have you ever heard people complain that they have paid insurance premiums for years with nothing to show for it? This feeling about insurance is common. The reason for this apparent injustice is that policy payments are contingent on events that may not occur. An insured may pay premiums for 20 years without incurring a loss, yet fail to appreciate the fact that protection was afforded over that 20 year period. At the other extreme, a total loss may be paid on a policy where only a single premium payment was made. Most contracts are commutative, meaning that the contracting parties exchange approximately equivalent values. An apartment lease is a commutative contract. The tenant receives the use of an apartment in exchange for the monthly rent.

- An insurance policy is a unilateral contract in that only one party (the insurer) has a legal duty to act. The insurer promises to provide stipulated benefits if certain events occur. The insured makes no legally enforceable promises, not even to pay premiums. Of course, if any required premiums are not paid, the policy will terminate. This is in contrast to a one-year apartment lease where the continuing rental payments are a legal obligation of the tenant. The landlord could enforce that obligation even if the tenant no longer occupied the apartment.

- An insurance policy is a conditional contract in that the insurer is obligated to honor its promises only if the insured has complied with certain conditions specified in the policy. The payment of the premium is a condition. If a loss occurs, several conditions must be satisfied before a claim is payable. The insured must notify the insurer of the loss in a timely manner. The insured should take reasonable steps to mitigate any further damage or loss. Cooperation of the insured is required. This need for cooperation is especially important with liability claims. Insureds should be alert to these policy conditions and the need to comply faithfully with them.

- Insurance policies are personal contracts in that the agreement is between the insurer and the insured. That is, it is with a person, not his or her property. Holding this principle, answer the question: if an insured automobile is sold, can the automobile insurance on that vehicle automatically be transferred to the new owner along with the title? The answer is “no” because the insurance policy is a personal contract between the insurer and the insured person, and the insurer of the seller reserves the right to underwrite the new vehicle owner if the new owner decides to purchase insurance from the insurer.

- A contract of adhesion is one designed by one party and offered to another party on a "take it or leave it" basis. Most contracts are contracts of adhesion. Lease agreements are drafted by landlords, with tenants having little or no say in the terms and conditions. The same is true of purchase agreements. Insurance contracts are designed by insurers. With a contract of adhesion, any ambiguity or uncertainty in its terms is construed in favor of the party who did not draft the language. Thus, if an insurance policy provision is capable of more than one interpretation, courts will adopt the interpretation most favorable to the insured. This result has influenced policy design. Insurers are reluctant to make major changes in policy language for fear of introducing new ambiguities.

- In most instances, the presence of a written contract between two parties focuses attention on the terms and conditions of the contract itself in defining the relationship between the parties. The expectations of the parties are not considered. The contract says it all. This strict adherence to the content of insurance contracts with no consideration of expectations, however, may result in serious inequities for insureds and beneficiaries. For example, what if an insurer's sales brochure suggests one thing but the policy states it somewhat differently, thus causing a conflict with the buyer's expectations created by the marketing material? Or what if an insurance agent interprets coverage for an insurer that is at variance with the actual policy provisions?
The reasonable expectations doctrine considers the objectively reasonable expectations of insureds and beneficiaries regarding the terms of insurance contracts, even though a painstaking study of the policy provisions would negate these expectations. This doctrine goes outside the confines of the contract itself to determine the rights and obligations of the parties to an insurance contract. The question of whether the insured's expectations are "reasonable" is ordinarily an issue of fact for the court to decide. The doctrine of reasonable expectations governs the construction of insurance contracts in nearly 20 states.

Insurance contracts are similar in a number of respects. First, as discussed earlier, the same legal principles apply to all insurance contracts, irrespective of type. Second, the contracting process is the same for all policies. Third, insurance policies often share a common structure. Finally, regulation often influences the design and pricing of insurance contracts.

The Insurance Contracting Process

Insurance involves creating a legal contract between two parties. For an insurance contract to be binding on both parties, the following elements must exist: (1) offer, (2) acceptance, (3) exchange of consideration, (4) competent parties, and (5) legal purpose.

- Any contractual agreement begins with an offer. In insurance transactions, the offer is generally considered to be made by the insurance buyer. Insurance agents act as transaction facilitators by soliciting prospective insurance buyers. The insurance buyer, by completing an application and paying a deposit premium, makes an offer to an insurer.

- Once an offer is made by a prospective insurance buyer, the insurer must accept or reject the offer or make a counteroffer. In property and liability insurance, insurance agents often have binding authority, the express power to accept offers on behalf of the insurers that they represent. This binding authority is granted in the agency agreements between insurers and their agents. Life insurance agents do not typically have binding authority. They can, however, provide some certainty for applicants through premium receipts. When a premium is paid along with the application for life insurance, the applicant is provided a conditional premium receipt. These premium receipts are important, because they define when coverage begins. Most conditional premium receipts provide that coverage becomes effective as of the date of the receipt or physical examination, whichever is later, so long as the insured meets the insurer's usual underwriting standards. If the insured fails to meet these standards, no coverage is deemed to have been provided.

- Consideration is the exchange of value between the insurer and insured. The insurer's consideration is the promise to pay certain benefits described in the contract. The insured's consideration is the completed application and initial premium payment.

- The parties to the agreement must be legally competent; that is, they must have legal capacity to enter into contracts. Companies licensed in the state as insurers and in compliance with state insurance laws satisfy the legal capacity requirement. For insureds, however, the legal capacity issue can be more complex. Incompetence on the part of the insured can lead to unfair advantage due to possible information asymmetries. The incompetence issue arises when the applicant for insurance is (a) a minor, (b) intoxicated or under the influence of drugs, or (c) mentally incompetent. In most states, the minimum age at which a person can enter into contracts (age of majority) is 18. In some states, this minimum age is reduced if the person is married. Of course, this issue would not apply to parents buying policies on the lives of their minor children.

- Finally, to be valid, an insurance contract must be for a legal purpose and not contrary to public policy. Attempts to insure contraband or stolen property fail this requirement. Insurance coverage for a boat used to transport illegal drugs would be considered invalid due to the use of the boat.
Permitting insurance protection for illegal activities would be considered contrary to the public interest. Lack of an insurable interest ordinarily invalidates a life insurance policy.

**Structure of the Insurance Contract**

Most insurance contracts have a common format that includes the following sections:

- Declarations
- Insuring agreements
- Exclusions
- Conditions
- Endorsements (riders)

**Declarations**

The declarations section of a policy consists of the fill-in-the-blank information that makes each policy unique. The declarations are usually the first one or two pages of the policy. It's often referred to as the declarations page in property and liability insurance and the face page in life insurance. It contains descriptive information such as the name of the insured and insurer, policy number, the object of insurance (life, home, automobile), policy limits, premium, policy term, loss sharing, and other information specific to the policy.

**Policy Limits**

Insurers define the extent of coverage provided through policy limits. These limits are indicated in the declarations section of the policy. Limits can be expressed in many ways. In property insurance, there may be separate limits for different types of property. For example, the limit on the dwelling itself is separate from the limit available for personal property losses. In addition, the indirect loss coverage provided in homeowner's insurance for additional living expenses has yet another limit.

Insurance contracts may also contain sublimits that further restrict coverage for certain types of losses. For example, the personal property coverage provided in homeowner's insurance contains several sublimits for certain types of property and perils. Currency loss is limited to $1,000. Loss by theft of jewelry or furs is limited to $2,500. In most instances, additional coverage can be provided by endorsement for an additional premium.

Liability insurance policy limits tend to be more complicated. In the U.S., personal automobile liability insurance commonly has per person and per occurrence limits. As elaborated in Insight A2-4, the per-person limit is the maximum amount payable to any one injured person involved in a liability claim. The per-occurrence limit is the maximum available in any one occurrence or claim event, regardless of the number of individual claimants.

Commercial liability insurance contracts may also impose an aggregate limit, which puts a ceiling on total payments in any one policy period. An aggregate limit caps the insurer's total obligations. The possibility of numerous liability claims in a short period of time led to imposing aggregate limits in most types of commercial liability insurance.

**Loss Sharing**

Most non-life insurance contracts contain loss-sharing provisions that allocate losses between insurers and insureds. Deductible provisions allocate the cost of smaller losses to insureds. Coinsurance provisions call for a proportional sharing of losses between insurers and insureds. Also, see Insight 19-2 for a further discussion of deductibles and coinsurance. Loss sharing provisions enhance the efficiency of the insurance mechanism as well as reduce moral hazard and mitigate adverse selection.

Disability insurers use a waiting period as a loss sharing feature. An elimination period operates like a deductible in that the insured does not receive disability payments until the elimination period has expired. The period can range from 10 days to one year. Insureds select an elimination period based on several factors, such as the availability of other disability benefits, personal savings, and cost.

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5 See Table 10-3 for a comparison of automobile liability coverages internationally.
Insight A2-4   Automobile Liability Insurance Limits

Most states in the U.S. require automobile owners to purchase a minimum amount of liability insurance. Oftentimes, the minimums are expressed separately for bodily injury liability and property damage liability. In addition, the bodily injury minimum may be expressed on a per-person and per-occurrence basis. For example, the state of Georgia requires the following minimum limits for automobile liability insurance:

- Bodily Injury Liability: $25,000 per person
  $50,000 per occurrence
- Property Damage Liability: $25,000 per occurrence

To illustrate how these limits work, assume Lindsay purchases automobile liability insurance coverage with these minimum limits. While driving, she negligently causes Bret to run off the side of the road, resulting in the following damages:

- Bodily Injuries: Bret ($25,000)
  Passenger A ($10,000)
  Passenger B ($10,000)
- Property Damage: $12,000

In this situation, these minimum liability limits restrict coverage for Bret’s injuries to $15,000 (per-person limit) and for the total bodily injuries to $30,000 (per-occurrence limit). In addition, the property damage liability coverage is limited to $10,000. The uninsured portion of the losses is Lindsay’s responsibility.

This illustration points to the need to consider carefully the adequacy of liability limits, especially with automobile insurance when large liability judgments are possible. State imposed minimum limits may fall far short of one’s actual legal obligations in automobile accidents.

These loss sharing provisions accomplish several objectives. First, their presence enhances the efficiency of the insurance mechanism. Small claims are often proportionately more costly to process than large claims.

Loss sharing is used to lower premiums. A common recommendation to reduce one’s insurance premium is to assume a larger share of losses, such as through a higher deductible. Some argue that higher deductibles are always in the best interests of consumers. But are they? Remember that higher deductibles have a negative impact on insureds as they bear a larger share of losses.

If the reduction in premium is not commensurate with the increase in retention, higher deductibles may not be such a good idea. For example, assume you are considering going from a $500 per loss deductible to a $1,000 per loss deductible. Also, assume you will incur a loss of $1,000 or greater every 5 years. This means you will be assuming an additional $500 in loss every 5 years, or $100 per year. If your annual premium credit for the higher deductible is only $50 a year, the annual premium savings would not justify the additional risk assumed.

Moral hazard is reduced by loss sharing. Insureds tend to be more careful and loss conscious when they have a financial stake in an insured loss. To the extent that the insured has some control over the magnitude of the loss, coinsurance provides an incentive to the insured to minimize the loss.

Finally, loss sharing has an influence on adverse selection. When insurance is offered with differential levels of loss sharing, insureds with low loss expectations favor higher retentions. Insureds with high loss expectations prefer lower retentions. Therefore, insurance contracts designed with retention options tend to create natural separations between low-risk and high-risk insureds.

Insuring Agreements

The core of an insurance contract is the insuring agreement, which describes the nature of the insurer’s obligations. Here is where the insurer promises to pay certain sums upon the occurrence of enumerated events. In property insurance, the insurer agrees to pay for property damage to covered property (described in the declarations) caused by insured perils. Liability insurance calls for the insurer to pay all settlements and judgments when the insured is found legally liable for activities covered in the contract. The liability
insurer also has a duty to defend the insured against all allegations, even if they are false or groundless. Life insurers promise to pay the beneficiary (or insured) certain amounts upon the death (or survival) of the insured. Health insurance provides for the reimbursement of covered medical expenses or the periodic payment of income for covered disabilities or incapacity.

Most insurance contracts are constructed on a modular basis. For example, the personal automobile insurance policy provides the insured with a variety of coverage options, including liability insurance, property insurance and medical payments insurance. Each of these coverage options has its own set of insuring agreements, exclusions and conditions.

Contracts also contain a definitions section that is either a part of the insuring agreement or a separate section. To minimize misunderstanding, insurers define certain words and terms that may be subject to different meanings. These defined words and terms are usually in boldface type to alert a reader that this term is specifically defined in the policy. For example, a personal automobile policy typically covers as insureds the person named in the policy declarations as well as the spouse and "family members." Who are family members? Would a sister living down the street be considered a family member? To avoid any misunderstanding, that term is specifically defined in the automobile policy.

Exclusions

All insurance contracts contain exclusions. Insurers find it necessary to specifically exclude certain types of property, perils, or losses. These are several reasons why exclusions are a necessary part of insurance contracts. First and as discussed in Chapter 19, insurable risks should be independent and identically distributed loss events. When this condition is not met, insurers find it difficult to diversify across exposure units.

Second, the moral hazard problem – a key economic concept discussed throughout this book – is addressed in several ways in insurance contracts. For example, the most liberal property insurance contract will exclude loss due to mold, rust, rot, decay, and other similar maintenance-type of losses. Intentional acts are excluded. Arson is excluded in property insurance. Liability insurance excludes loss caused by the intentional acts of insureds.

Moral hazard is also addressed through contract limitations and loss sharing provisions. For example, the loss of currency would be an open-ended problem if it were not for a policy provision that limits currency losses to a specific amount. Loss sharing provisions tend to unify the interests of the insurer and insured. The insured becomes a participant in a loss, creating an incentive for the insured to engage in loss prevention and loss reduction activities.

Third, several exclusions exist to avoid overlapping coverage and the inefficiency created by such redundancy. For example, homeowner's insurance covers both the insured's dwelling and personal property. Since personal automobiles are classified as personal property, however, the homeowner's policy clearly excludes personal automobiles from its definition of covered personal property. Personal automobiles are more appropriately covered using personal automobile insurance.

Finally, exclusions can serve to limit coverage to make the premium more affordable. Some insureds may desire a more limited version of coverage to keep premiums within a budget constraint. Exclusions can be used to eliminate coverage for losses not considered essential. Insurers also use exclusions to limit coverage where the intent is to provide a very specific coverage at an affordable price. For example, ordinary homeowners do not possess boats or airplanes and it is thus reasonable to exclude coverage for these and other unusual items from the standard homeowner's insurance policy. In other words, owners of such properties may apply for an additional coverage for each (type of) the excluded properties.

Conditions

The conditions section of a policy includes several general provisions necessary to complete the contract. More precisely, this section lists the provisions that the insured must meet to keep the policy valid and to receive applicable benefits. Probably, the most common provision is regarding the insured's duties in the event of a loss. Some of the more common duties include the following:

- **Prompt notification.** Insurers are interested in being notified promptly if a covered loss has occurred. Since the insured is generally the first to be aware of a loss event, the insured is responsible for promptly notifying the insurer. What does it mean to be "promptly"? Generally, the insurer should be notified by the insured as soon as practicable. In many instances, the insured notifies the insurance agent, which satisfies the notification requirement, as the agent is the legal representative of the insurer.
The importance of this condition should not be underestimated. Late notification of a loss may prejudice the insurer's position in a claim, especially in liability claims. Insurers may deny a claim solely because of the insured's failure to satisfy the prompt notification condition.

- **Loss mitigation.** Property insurance requires the insured to take all reasonable action to limit further damage after a loss has occurred. The insured is generally in the best position to mitigate a loss, such as emergency repairs. Any expenses incurred in this action by the insured are reimbursed by the insurer.

- **Documentation.** Insureds may be asked to provide documentation regarding a loss, such as evidence of ownership or valuation. Health insurance contracts may ask for medical records or reports to determine health status.

- **Cooperation.** Insurers expect their insureds to cooperate with them in the settlement of claims. This is especially critical with liability claims. Insurer contracts require cooperation in the investigation, settlement, and defense of any claim or lawsuit.

The section of the conditions also spells out the rights of the insurer and insured to terminate the contract. This termination provision usually contains two parts—cancellation and nonrenewal.

- **A cancellation** is the termination of a policy during the policy period. The insured can cancel a policy at any time by notifying the insurer of a desire to terminate coverage. The right of the insurer to cancel coverage, however, is negated or limited. Life insurers cannot cancel coverage if the insured has satisfied his or her contractual obligations. In property and liability insurance, the insurer's right to cancel coverage is limited by state law. If cancellation is permitted, insurers must provide their insureds with a notice of termination prior to the effective date. The minimum number of days notice is also prescribed by law.

- **A nonrenewal** is a decision by the insurer not to continue coverage past the end of the current policy period. A guarantee of renewal is important to insureds in all forms of insurance, especially life and health insurance. Some life and disability policies cannot be renewed, because the policy term extends over many years or even for the insured's entire lifetime. Other forms of life insurance are often provided with a renewal guarantee up to a certain age at guaranteed premiums. Health insurance may offer a renewal, but may not guarantee the renewal premium. More will be said about life and health insurance in later chapters.

  Property and liability insurance does not guarantee the renewal of coverage. Notice of the intent not to renew, however, is required. This notice must be communicated in writing to the insured at least 30 days prior to the end of the policy period. Again, the specifics of nonrenewal provisions are governed by state law.

The subrogation provision mentioned earlier is included in the conditions section. This provision may carry a number of different titles, but the concept is the same. Insurers desire any right to recover damages from others transferred to them once they have indemnified their insureds for the loss.

**Endorsements and Riders**

Standardized insurance contracts are designed to satisfy the coverage needs of a target market where those needs are somewhat homogeneous. **Endorsements** or **riders** are added to these standardized contracts to modify the terms and conditions of the policy. Insurers may initiate these modifications to comply with state law or for underwriting reasons.

For example, an insurer may insist on adding an endorsement that restricts coverage. Insureds may request an endorsement to extend or modify policy terms and conditions. A homeowner's policy may be endorsed by an insured to add coverage for jewelry or an art collection. A life insurance policy may have a rider added that provides options to purchase additional coverage in the future, without evidence of insurability.
LAW OF AGENCY

Insurance transactions usually involve insurance intermediaries. These intermediaries add value for insurers by promoting their products and services. They add value for insureds by assisting them in making decisions. Figure A2-2 illustrates the relationship of the insurance intermediary to the insurer and insured, including the duties owed to each party.

Duties Owed to Insurers

A principal-agent relationship exists between the insurer and the insurance agent. The insurance agent is at the point of sale and has the authority to act on behalf of the insurer. This agent’s authority is derived from three sources:

- **Express Powers**: These are explicitly conferred on the agent to act as an insurer’s legal representative. These powers are defined in an agency agreement, a written contract between the insurer and the agent. Agents are empowered to solicit business on behalf of the insurer. Most non-life insurance agents have the express power to bind insurers to offers made by prospective insureds.

- **Implied Powers**: These refer to the authority to perform services that are considered incidental to the express powers enumerated in the agency agreement. For example, insurance agents are often called upon by insureds to explain provisions in insurance contracts. Agents must be careful when offering these explanations that they do not deviate from the intent and specific language of the contract. If they offer an opinion or explanation that is contrary to the position of the insurer and the insured relies on that information, the agent’s representation may constitute a waiver of any contrary policy provision, which could bar the insurer from enforcing its position in a coverage dispute. A waiver is a voluntary relinquishment of a known right. In such cases, insurers may take legal action against their agents for the negligent use of their implied authority.

- **Apparent Authority**: Occasionally insurance agents go beyond their express or implied authority. If these acts are reasonable and relied on by insureds or others, insurance agents may possess the apparent authority to bind the insurance company. This is especially true if the insurer is aware of these extra-contractual acts and fails to take action to eliminate the practice.

Insurance agents also owe a duty to insurers to disclose all relevant information about their insureds or proposed insureds. Incentive conflicts may lead to an absence of candor and full disclosure. Normally insurance agents are compensated only when they make sales. Agents may be reluctant to provide complete disclosure of information about an applicant if they believe the information could cause a loss of the sale.
Duties Owed to Insureds

Insurance intermediaries typically do not have a contractual relationship with their clients; however, they do owe certain common law duties to them. First, they owe a duty to assist clients in determining their insurance needs. This normally begins with a risk assessment to determine where insurance coverage is necessary or desirable. Insurance intermediaries are deemed to be more than mere order takers. They are expected to provide guidance as to the necessity and suitability of the recommended insurance coverages.

Insureds certainly expect that agents to place their coverage with solvent insurers. They expect agents to monitor the financial condition of insurers. Most agents use financial rating agencies to determine the financial strength of insurers.

The failure to satisfy these duties to insureds can result in a liability claim made by the insured. The insured could argue that the agent failed to exercise the standard of care expected in the profession and hold the agent accountable for resulting damages. Most insurance agents purchase professional liability insurance for this exposure.

Another duty owed to insureds is the procurement of the desired coverage. This duty seems obvious, yet it is the most common source of litigation between insureds and their insurance agents. Suppose an insured calls her agent and requests a certain coverage be added to her policy. The agent acknowledges the request, yet fails to notify the insurer of the request for additional coverage. Unfortunately, this story line occurs more often than it should.

DISPUTE RESOLUTION

Insurance policies are designed to make clear the coverage provided. In spite of this intent, disputes arise. Disputes in connection with claim settlements are by far the most common. Adverse underwriting decisions such as cancellations, non-renewals, and premium increases can also be contentious.

Insurers owe their insureds a good faith effort to honor their contractual obligations. In property insurance claims, the insurer must determine that the property damaged meets the definition of covered property and that the cause of loss is a covered peril. If those conditions are satisfied, the amount of the covered loss must be determined. All of these critical claims questions are sources of disagreement.

Liability insurance provides two promises: a duty to defend and a duty to pay when the insured is legally liable. If the insurer is not certain that a particular incident is covered, a reservation of rights letter may be sent to the insured as a disclosure of the insured's concern as to coverage for the claim. This communication does two things: it puts the insured on notice of a possible coverage problem and preserves the right of the insurer to continue the investigation without forfeiting its right to reject coverage at a later date.

Insurers generally have the contractual right to settle a liability claim without the insured's permission. The insured may object to such settlement as an admission of guilt, however, the insurer has the unilateral right to settle if considered expedient. The insured's permission for settlement is required, however, with most types of professional liability insurance where the impact of a settlement to one's professional reputation can be significant.

In life insurance, the claims process is less complicated, yet disputes may arise as to misrepresentation and insurable interest. Health insurance claims disputes are becoming more common, especially with the advent of managed care. Disputes arise as to the medical necessity of certain treatments or the reasonableness of charges by healthcare providers.

Most insurance disputes can be resolved through negotiation between the parties. If a settlement cannot be reached, litigation may be necessary. The time and cost of litigation, however, has led to the development of alternatives that offer a more timely and cost effective means of resolving insurance disputes. Alternative dispute resolution (ADR) includes a family of dispute resolution mechanisms that offer a more efficient approach to resolving disputes between the parties.

Negotiation

The most common form of dispute resolution is negotiation where the parties to the dispute deal directly with each other in settling the dispute. As mentioned previously, insureds often turn to their insurance agents as an advocate for their positions. In some instances, these intermediaries will intercede for their clients. However, there may be a conflict of interest. Insurance agents are legally the representatives of the insurers, not the insureds. They may find supporting their clients' positions to be awkward in light of the contractual relationship with their insurers.
In property insurance disputes, insureds sometimes utilize the services of **public adjusters** who are claims specialists who represent insureds in disputes. There is no conflict of interest here as the public adjuster represents only the insured.

The most common result of negotiation is settlement. Unfortunately, the settlement may not be what either party desires and the negotiation process itself may have been acrimonious, leaving one or both parties bitter and feeling that they were cheated. Such bad experiences may be a major cause of the frequent low ratings for insurance and insurers in most public opinion polls.

**Mediation**

A less commonly used form of dispute resolution in insurance is **mediation** where the parties in a dispute or their representatives meet with a neutral third party to seek a resolution to the dispute. The mediator's role is to help the parties resolve the dispute. The mediator is a facilitator, not a decision-maker. The mediator offers suggestions or points out options that may have been overlooked. Mediation has been used successfully in many areas of dispute, including marital relations and divorce. It is both effective and efficient, often leading to timely resolution with low administrative expenses. Finally, mediation often results in greater satisfaction in that both parties are actively involved in the actual resolution of the dispute.

**Arbitration**

**Arbitration** is a more structured form of dispute resolution where the dispute is referred to one or more impartial persons for a final and binding determination. Arbitration can be specified in an insurance contract as the method for dealing with disputes or chosen by the parties to the dispute.

Arbitrators are selected for their expertise and impartiality. The American Arbitration Association exists to provide the infrastructure and a pool of arbitrators to facilitate arbitration. Both parties are given the opportunity to present their cases. Discovery is usually provided to produce relevant documents. Witnesses can be a part of the process.

Arbitration is more time consuming and costly than mediation. It does, however, have the advantage of leading to a final resolution. The arbitration process is similar to litigation, yet it has the advantages of easier access, more timely resolution, and lower cost.

**Litigation**

The last resort in dispute resolution is **litigation** where one party brings legal action against the other party. In most instances, the insured sues the insurer for failure to perform under the insurance contract or negligent action by the insurer or its agents. For insureds contemplating litigation, it is important to be aware of any policy conditions relating to litigation. Insurance policies commonly specify that any litigation against the insurer must commence by a certain time, such as within one year following the date of the loss. If the negotiation process drags on for months, this contractual deadline may come into play.

The litigation option leads to resolution. The process, however, often is time consuming, expensive, and an emotionally draining experience. The threat of litigation usually leads to resolution prior to the actual trial. Fortunately, most insurance disputes are resolved prior to the need to consider the litigation option.

This discussion of the legal aspects of insurance serves as a foundation for understanding the nature, content, and operation of insurance. Even if you are not now inspired to read every word of your own insurance policies, you will certainly be prepared to understand the various types of insurance discussed later in this text. Good luck with your journey.

**DISCUSSION QUESTIONS**

1. Compare the application of the **principle of indemnity** to the following types of insurance:
   a. Property insurance
   b. Life insurance
   c. Health insurance

2. Compare the principle of **insurable interest** in life insurance versus property/liability insurance.
3. Discuss the impact of the following:

   a. An applicant for a life insurance policy provides incorrect responses to questions regarding his or her current health status.
   b. An applicant for property insurance fails to disclose the proximity of the insured property to a body of water. No such question, however, was included on the application form.
   c. An alarm system for a jewelry store that was warranted by the insured to be operational was not working at the time of a theft loss.

4. What would be the potential impact of the following? Explain.

   a. Insured fails to pay a premium.
   b. Insured fails to cooperate with the insurer in settling a claim.
   c. Insured fails to promptly notify the insurer of a claim.
   d. A policy provision is considered ambiguous.

5. Describe the insurance regulatory practices that address the following:

   a. The possible future insolvency of an insurance company.
   b. The value of the insurer’s promise as described in the insurance policy.
   c. The accuracy of insurance product and pricing information provided to the public.
   d. The fairness provided in a claim settlement.

6. Identify and briefly describe the duties that insurance agents owe to their clients.

7. Compare arbitration and litigation with respect to:

   a. Response time
   b. Expected cost
   c. Level of consumer satisfaction
   d. A policy provision considered ambiguous
Chapter A3

Personal Property Loss Exposures

RISK ASSESSMENT

Individuals face a variety of property loss exposures that should be identified and evaluated as part of the risk assessment process. This assessment is critical to making informed decisions about controlling and financing these property loss exposures.

Individuals, in assessing their property loss potential, need to consider the following:

- Types of property
- Types of loss
- Causes of loss
- Property valuation
- Property interests

Types of Property

In Chapter 22, we define property, as used in the law, as the rights of possession, control and disposition of an object. We also define real property as ownership rights associated with land and objects permanently attached to land, and personal property as ownership rights in movable property, such as automobiles, furniture, clothing and computers.

Real Property

Real property represents a major asset class for many individuals, of which home ownership typically is the most important. The homeowner possesses two types of real property: the house and the land. From a risk management perspective, most attention is focused on the house because it is ordinarily far more susceptible to loss or damage than is the land. A possible exception can be landscaping: the trees, plantings and lawn. This type of real property can be damaged by perils such as fire, windstorm, and lightning, as well as flood, drought, disease and insects.

The house and landscaping may not be the only examples of real property located at a residence. Detached garages, swimming pools, spas, gazebos, barns and other structures are a part of the total residence. All such real property exposures should be carefully assessed and decisions made regarding loss control and risk financing.

Finally, some individuals have real property holdings beyond their primary residence. It is not unusual for families to acquire second homes that are used for recreational purposes. Examples include a condo in a ski resort, a mountain cabin or a place at the shore. In addition, some individuals invest in real estate, including dwellings, multi-unit buildings, and commercial real estate.

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6 The authors acknowledge with appreciation William R. Feldhaus (Georgia State University) as the principal author of this chapter.
Insight A3-1 Identify Theft

What does it mean to have your identity stolen? **Identity theft** is the wrongful appropriation of personal information without your knowledge to commit fraud or theft. By co-opting your name, Social Security number, credit card number or some other form of personal information, a dishonest person can cause an innocent person financial loss as well as damage to his or her credit rating. For example, an identity thief could open up a new credit card account using your name, date of birth and Social Security number. Any unpaid bills on this account may transfer to you and show up on your credit report. Using your personal and credit information, an identity thief could request a credit card issuer to charge the mailing address on your account. Fraudulent charges will then go undetected since the statements are now being sent to the new address. (You may also refer to Chapter 18 which discusses identify theft loss exposures that corporations face.)

If you suspect personal information is being used improperly, the following steps should be taken:

- Contact major credit bureaus – Equifax, Experian and TransUnion – to report the incident and request a “fraud alert” be placed on your file, with no new credit being granted without your approval. From fall 2007, U.S. residents may request a “Security Freeze” to each of the credit bureaus.
- Contact the security department of appropriate creditors and financial institutions.
- File a report with local police.

**Personal Property**

Personal property is not fixed to any one location but can be transported. This portability feature has important implications in that property insurance coverage must apply to the personal property itself, not to any particular location. As mentioned in Chapter 1, personal property can be either tangible or intangible. For individuals, tangible personal property includes furniture and accessories, appliances, clothing, and numerous other items acquired. The automobile is a common and significant example of personal property for most individuals. For young persons, the personal automobile is often their most important item of personal property.

Intangible property is representative or evidence of value, such as stock or bond certificates, certificates of deposit and insurance policies. These pieces of paper have no intrinsic value, yet they establish one’s ownership rights that may represent a substantial portion of total wealth.

A person’s reputation is another example of an intangible asset. A reputation for financial responsibility is evidenced by one’s **credit score**, which is a measure of how well a person has managed his or her credit arrangements over time. A high credit score is indicative of a reasonable amount of credit and timely payment. A good credit score facilitates the extension of additional credit at favorable terms and conditions. Unfortunately, one’s credit reputation can be severely impaired by someone assuming their identity and incurring debt with no intention of payment. This identity theft problem is discussed in Insight A3-1.

**Types of Property Losses**

Two types of loss are associated with property damage. The first is direct loss to the property itself. **Direct loss** is the reduction in property value because of a loss event. Direct loss is the most obvious type of loss for property owners. The loss may be partial or total. Repair may be possible with partial losses. Total losses necessitate replacement if the utility provided by the damaged property is to be continued.

The second is the **indirect loss** associated with the damage to or loss of property. Property damage may also have an indirect loss component arising from (a) the loss of use of the damaged property or (b) the consequential loss caused by the loss event. The loss of use is the loss of utility incurred during the repair process or the time necessary to replace the damaged property. This type of loss is referred to as a **time element loss** in that the amount of loss is a function of the time it takes for repair or replacement of the damaged property. Most direct loss is accompanied by loss of use that adds to the financial impact of the loss event. For example, if your car sustains damage that takes 10 days to repair, you suffer the inconvenience of having no transportation, rely on public transportation or friends, or incur additional expense by renting a car. The same type of loss occurs when a residence is damaged and no longer
habitable. The only options are to move in temporarily with family (help!) or friends or find a hotel or other short-term rental. Loss of use can constitute a greater loss than the actual direct loss. Indirect loss also includes consequential loss that may arise from the loss event. For example, what if you lose one item from a pair or set? Your loss is not necessarily limited to the item lost because the value of the pair or set may be affected. Losing an earring or a single piece from a chess set are examples.

**Causes of Loss**

Risk assessment requires consideration of the possible causes of loss. The causes of loss are *perils*. Flood is a peril. Conditions that increase the likelihood of the occurrence of a peril are *hazards*. The building of a house along a river prone to flooding is a hazard that increases the likelihood of a flood loss. It often proves helpful in understanding the nature of perils to sort them into the following categories:

- **Natural perils** – sometimes referred to as "Acts of God" – include all naturally occurring phenomena that can cause damage to property. This category includes, among others, lightning, windstorm, earthquake, pestilence, drought, and flood.

- **Human perils** include all property damage caused in some part by humans and their activities. Most fire losses are people-related, from overloaded electrical circuits to faulty wiring to arson. All property-related crime perils, including burglary, robbery, and theft, are human perils.

- **Strategic perils** refer to the causes of loss or events that are not natural and do not relate directly to the acts of individuals. Economic events can cause damage or loss to property value. Inflation can increase or decrease its value. The relative value of foreign currencies may change, resulting in a loss to holders of the devalued currency or debts payable in the devalued currency. Consumer preferences or a technology change can render property obsolete, as with electronics and computer equipment. Note that a strategic peril may not change the physical condition of a property but the value of the affected property. Political events can also cause a reduction in property value. War and warlike activities often result in extensive property damage. Countries may nationalize private property, resulting in a loss to investors. Terrorism has now come to the forefront as a source of loss to people and their property.

**Property Valuation**

A key element in property risk assessment is establishment of property values. If property is damaged or destroyed, what is the amount of the loss? To a great extent, the answer depends on who is asking the question and why. For example, a property tax appraiser will value property differently than an insurance claims adjuster. A single item of property can have several values depending on the user of this information.

- The **economic value** of any asset is the present value of imputed future cash flows. For property that produces a cash flow, such as apartments and office buildings, the economic value is estimated by applying a selected multiple to annual rents. The economic value lost by damage to or theft of an automobile would be the cost of substitute transportation.

- The **market value** of property is the price that a willing buyer and seller would agree to in a property sale. The market value of most property is a function of the property itself plus external factors that affect the attractiveness of the property. General economic conditions may affect market value. Neighborhood features may increase or decrease a building’s market value. A deteriorating neighborhood has an adverse effect on market value, even though the house may be attractive and well maintained.

- In some instances, the repair of damaged property does not result in a restoration of the property's pre-loss market value. This reduced market value of previously damaged property is called **diminished value**. For example, if an automobile sustains $8,000 in damage in an accident, the repaired automobile would not have a market value comparable to a similar vehicle that had not been in a serious accident. Diminished value is now recognized in many states, with the difference between pre-accident and post-accident market value being included as part of a loss.
• **Original cost** is the property's acquisition cost. This value is objective and precise, and becomes the valuation base. When property is damaged or destroyed, the Internal Revenue Service limits tax deductibility to the original cost. If an asset is sold, the spread between the original cost and the selling price determines the taxable gain (loss) on the transaction.

• **Book value** is the depreciated value of the property, computed by subtracting accumulated depreciation from the original cost. The extent of depreciation may be known or some rule of thumb or allowance may be applied to calculate book value. If property has been depreciated, book value becomes the limit for tax deductibility purposes.

Property insurers use valuation schemes unique to insurance. The replacement cost of property is the cost to repair or replace the property at today's prices with no allowance for depreciation. This approach to valuation was mentioned earlier in the discussion of the principle of indemnity. As discussed in Chapter A2, the actual cash value (ACV) equals the current replacement value less the physical depreciation and obsolescence.

**Property Interests**

An insurable interest in property may arise under several circumstances. Ownership of property as well as other interests may exist that create an insurable interest. Of which, the ownership of property is the most common determinant of insurable interest in property. Property ownership may be individual or involve multiple parties, such as a married couple or members of a family. Property owners suffer a financial loss if the owned property is damaged or destroyed. Property owners commonly protect this financial interest through the purchase of property insurance.

The acquisition of property is often financed by a financial institution such as a bank or credit union. During the term of the loan these institutions have a financial interest in the acquired property as collateral for the loan. This financial interest – creditor interest – is usually protected from any direct loss or damage by including the financial institution as an insured on the debtor's property insurance policy. Once the debt is satisfied, the financial institution's interest no longer exists and the financial institution is deleted as an insured.

**LOSS CONTROL**

Loss control is usually discussed in the context of commercial loss exposures. Business organizations often have the resources necessary to apply sophisticated loss control techniques to reduce the frequency and severity of losses. Earlier chapters deal with business loss control. Does this mean that loss control has no meaning for individuals and families? No, yet the options available may be more limited given the resource constraints for most of us.

**Avoidance**

Avoidance is an effective means of controlling certain loss exposures, yet realistically, it has limited application for most individuals and families. The risk associated with home ownership can be avoided by leasing a residence. While this decision may avoid the risk of loss to real property owned by an individual, it may be contrary to one's desire for home ownership. A more practical application of avoidance as a risk control technique is in deciding whether to buy a vacation home on the beach. Suppose you and your family enjoy spending time at the beach. You could purchase a beach home or continue your usual practice of renting a house or condo.

**Loss Prevention**

If complete avoidance of most individual property loss exposures is not possible, is there something that can be done to reduce the frequency of loss? Certainly, and some loss prevention techniques involve small expenditures. In economic terms, loss control efforts will continue so long as the marginal benefit exceeds the additional cost.
Residential Risks

A major residential property loss concern today is the peril of theft. No longer is theft considered a problem of the inner cities alone. Criminals have transportation, and they threaten even the best of neighborhoods in the suburbs. In fact, the significant increase in gated communities reflects the effort to control who enters the neighborhood, but it comes with higher living costs and some inconvenience – a price some homeowners are willing to pay. “Neighborhood watch” programs, where neighbors are more sensitive to the comings and goings in the neighborhood, serve the same purpose. Suspicious activities are promptly reported to the police. In fact, neighborhood watch organizations work closely with local public safety authorities in reducing the incidence of crime and have proven to be effective with minimal expense.

Cost effective residential loss prevention techniques include door and window locks. A dead bolt lock is not fool-proof, but it does make it more difficult to gain entry. Window locks are simple devices, yet they can be a deterrent to easy home entry. Experts also point to such things as the trimming of hedges by windows and adequate lighting as meaningful deterrents to crime. Most of these loss prevention suggestions are well within the budgets of most homeowners.

Home security systems are a further deterrent to home intrusions. Most home security systems include warning signs, local alarms (sensors that detect an intrusion and trigger an alarm), and central station monitoring.

Automobile Risks

With respect to collision loss, the most meaningful loss prevention technique is safe driving. Unfortunately, that is easier said than done. Our roads and highways are congested. Everyone is in a hurry. Multi-tasking is common for many drivers. We eat, read, and talk on the telephone while driving.

Loss Reduction

It's impossible to prevent all property losses. For losses that occur, what can be done to mitigate the loss and reduce the adverse financial impact on the property owner?

Residential Risks

Alarm systems were mentioned earlier for their deterrence effect. These systems also contribute to loss reduction. In fact, the sounding of an alarm or the prompt notification to the police can greatly reduce the amount of property taken or enhance the recovery of stolen items. Fire and smoke alarms are usually associated with life safety, but they also contribute to loss reduction by the prompt identification of a problem. Such early warning can reduce the probability of a total fire loss.

Fire sprinklers, long known for their loss reduction impact in commercial property, are increasingly found in residential properties. In fact, in some areas of the U.S. where fire is a significant concern, automatic sprinklers are now required in new residential construction. An in-home sprinkler system adds about 1.0~1.5 percent to the cost of building a new home. Retrofitting an existing home is more costly. A sprinkler system in a home contributes to life safety and greatly reduces the chance of a total fire loss. Most property insurers offer a premium discount for such systems.

Automobile Risks

The loss prevention techniques for collision mentioned earlier have loss reduction implications. Some others include things such as the selection of the vehicle. The Highway Loss Data Institute (HLDI), a nonprofit public service organization, compiles statistics on the relative costs of injury, collision and theft losses by the make and model of vehicle.

Table A3-1 provides these cost indexes for a select group of luxury vehicles. An index of 100 indicates an average loss. An index above or below 100 indicates a better than or worse than average loss amount. For example, the selected vehicles in the table all have a very low injury index, indicating that injuries to occupants of these vehicles are relatively low. On the other hand, the relative cost of collision and theft losses among luxury vehicles is high.
Table A3-1  Relative Costs of Insurance Losses (Large Luxury Vehicles, 2003~2005)

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Injury</th>
<th>Collision</th>
<th>Theft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buick Park Avenue 4dr</td>
<td>49</td>
<td>64</td>
<td>8</td>
</tr>
<tr>
<td>Lexus LS 430 4dr</td>
<td>52</td>
<td>122</td>
<td>94</td>
</tr>
<tr>
<td>Volvo V70 station wagon</td>
<td>58</td>
<td>94</td>
<td>27</td>
</tr>
<tr>
<td>Cadillac DeVille 4dr</td>
<td>61</td>
<td>92</td>
<td>55</td>
</tr>
<tr>
<td>Mercedes S class 4dr LWB</td>
<td>65</td>
<td>192</td>
<td>227</td>
</tr>
<tr>
<td>Mercedes E class 4dr</td>
<td>76</td>
<td>131</td>
<td>77</td>
</tr>
<tr>
<td>Lincoln Town Car 4dr</td>
<td>66</td>
<td>93</td>
<td>33</td>
</tr>
<tr>
<td>Lincoln LS 4dr</td>
<td>79</td>
<td>102</td>
<td>165</td>
</tr>
<tr>
<td>BMW 7 series 4dr LWB</td>
<td>59</td>
<td>178</td>
<td>431</td>
</tr>
<tr>
<td>BMW 5 series 4dr</td>
<td>84</td>
<td>154</td>
<td>149</td>
</tr>
<tr>
<td><strong>All Very Large Luxury Vehicles</strong></td>
<td><strong>63</strong></td>
<td><strong>131</strong></td>
<td><strong>175</strong></td>
</tr>
<tr>
<td><strong>All Large Luxury Vehicles</strong></td>
<td><strong>72</strong></td>
<td><strong>123</strong></td>
<td><strong>88</strong></td>
</tr>
</tbody>
</table>


**RISK FINANCING**

Individuals normally utilize insurance as a means of financing property losses. The significance of the values inherent in homes and automobiles poses a catastrophic loss potential for most individuals and families. Property insurance provides the economic security deemed necessary for these exposures. In addition, most individuals must borrow funds to purchase a home or automobile. Creditors demand that lenders purchase property insurance to protect the interests of both parties. A 2006 Insurance Research Council survey reports that 96 percent of homeowners have some form of homeowner’s insurance. The significance of the creditor mandate is reflected in the fact that 43 percent of renters carry property insurance on their personal possessions.

**Homeowner’s Insurance**

The homeowner’s insurance policy is intended to provide in one policy the essential property and personal liability insurance needs for residence owners. Homeowner’s insurance is considered a “package policy” in that multiple types of insurance are combined within a single policy. The property insurance aspects of homeowner’s insurance are discussed in this chapter. The liability portion of the policy is examined in the next chapter.

**Eligibility**

The term homeowner’s insurance suggests that this program is intended for individuals who own their homes. In the beginning, home ownership was required to be eligible for homeowner’s insurance. As time went on, however, the homeowner’s insurance program was broadened to incorporate other common forms of habitation.

- **Owner occupied home.** It is the most common type of residency in the U.S. Single family residences are the most common. However, multi-family residences, such as duplex or triplex, are eligible for homeowner’s insurance, as long as the owner resides in one of the units.

  The homeowner’s program offers several forms of homeowner’s coverage, with the differences in the form a function of (a) property covered, (b) perils covered, and (c) property valuation. These differences are examined later.

- **Tenant occupied residence.** Homeowner’s insurance is not just for owner-occupied residences. The tenant homeowner’s form provides coverage for tenants living in apartments or houses. Since a tenant does not own the residence, the tenant homeowner’s property coverage is limited to the personal property of the tenant and any loss of use associated with damage to the residence. The prevalence of this form of habitation has made the tenant policy quite popular.
Condominium unit owner. Condominiums are a type of multi-unit real property where each unit owner holds the title of his or her unit and all unit owners have undivided interest in common areas and buildings. Condominium unit owners thus have an insurable interest in that portion of the real property that they occupy. The condominium association normally insures all real property through a master property insurance policy, with the premium allocated to the unit owners as part of their association fees. The association also purchases liability coverage to protect the association and the unit owners in case of any premises liability arising from the common areas, such as a swimming pool or clubhouse.

Condominium unit owners are eligible to purchase a condominium unit owners policy that provides coverage for personal property and any loss of use related to covered loss events. This coverage is similar to that provided in the tenant policy, with some extensions of coverage appropriate for condominium unit owners. For example, condominium associations normally have a contractual right to assess the unit owners for any damage to condominium property not covered by the master property policy. The condominium policy provides unit owners with coverage for any such assessments up to a specific limit.

Properties Covered

The homeowner’s policy form includes coverage for both real property and personal property owned by the homeowner. The real property coverage consists of both the dwelling itself and any other structure that may be a part of the residence premises, such as a detached garage, barn or swimming pool. The personal property coverage includes furniture, appliances, clothing and other forms of personal property owned by the homeowner.

- **Dwelling.** The dwelling coverage is the key property coverage provided by most homeowner’s policies. The dwelling is the single largest property value insured. Other property coverage limits are usually defined as a function of the dwelling limit. If these derived limits are inadequate, the insured can increase them for an additional premium.

  The homeowner policy defines the covered dwelling as the residence premises shown in the policy declarations, including structures attached to the dwelling. In addition, materials and supplies located on the premises used to construct, repair or modify the dwelling are covered. Homes in the course of construction can be insured with a homeowner’s policy.

  Land, including the land on which the dwelling is located, is excluded from coverage. This exclusion is not considered significant, in that land is not subject to loss from the commonly insured perils, such as fire, windstorm or water damage. For those few homeowner’s insurance policies that include coverage for earthquakes, however, some coverage is provided for any damage to land.

- **Other structures.** The homeowner’s policy defines other structures to include other types of real property set apart from the dwelling by clear space, such as detached garages, barns, storage buildings or swimming pools. The policy automatically provides other structures coverage equaling, say, 10 percent of the dwelling limit regardless of whether such an exposure exists. Thus, if a dwelling is insured for $300,000, the limit for damage to other structures is $30,000 ($300,000 x 10%). This fact illustrates one of the potential drawbacks of package policies in that coverage may be provided and included in the pricing regardless of whether the insured needs such coverage.

- **Personal property.** The homeowner’s policy covers personal property owned or used by an insured “while it is anywhere in the world.” In most instances, an insured’s personal property is located in the insured’s home but not invariably. Some examples include: (a) an insured’s luggage is lost while on a trip; (b) personal property is stolen from an automobile; and (c) an insured’s daughter is living away from home in a college dormitory.

  The insurer may set the limit for personal property located away from home, e.g., 10 percent of the personal property coverage limit. The homeowner’s personal property coverage is provided on a blanket or so-called unscheduled basis, that is, no itemization of the covered personal property. The lump sum personal property limit is available for any covered personal property loss.

- **Special limits of insurer liability.** Certain types of personal property and perils are subject to specific recovery limits. These limitations exist for several reasons. First, moral hazard concerns limit recovery for loss of personal property such as money and securities. Second, the homeowner’s policy is designed to cover only the usual exposures expected in a household. If a family has a significant exposure to certain types of loss, such as high valued jewelry or coin collections, these exposures should not be fully covered and subsidized by all insureds. Reasonable limits are
provided in the basic policy, with higher limits available by endorsement to those who desire additional coverage.

Property Not Covered

Certain types of personal property are more appropriately covered by other types of property insurance and, therefore, are excluded from homeowner’s coverage. In most cases, these other property policies are specifically designed for these types of personal property. The following personal property is excluded:

- Personal articles separately insured;
- Animals, birds or fish;
- Motor vehicles. This exclusion does not apply to personal property such as golf-carts, lawnmowers, and motorized vehicles for the handicapped;
- Aircraft;
- Property of roomers, boarders and other tenants;
- Property in an apartment regularly rented or held for rental to others; and
- Business data.

As working at home is becoming more common, some insurers modify homeowner’s insurance forms to more adequately insure the telecommuting exposure. This is important relative to both business personal property (computers, data, etc.) at the residence and the legal liability exposure of any business activities being conducted on the premises. More is said on the liability implications in the next chapter.

Losses Covered

The homeowner’s policy provides coverage for direct damage to covered property, including some expenses related to the loss. In addition, homeowner’s insurance covers the loss of use associated with the direct damage. We describe below some of the key losses commonly covered in the U.S.

- Direct damage. The primary coverage provided in homeowner’s insurance is the direct damage caused to covered real and personal property. The amount of loss is determined by the policy valuation provision discussed later in this chapter.

- Debris removal. In addition to the actual direct loss or damage to covered property, several expenses often associated with direct damage are covered as well. When property damage occurs, a necessary part of rebuilding is the removal of debris from the premises. For a large loss, this expense can be substantial. Homeowner’s insurance will pay up to a certain amount (e.g., $1,000) for the removal of downed trees so long as the trees have caused damage to the dwelling or other insured structures. In addition, the tree falling must be the result of specified perils. In general, for “owned” trees, the peril must be windstorm, hail, or weight of ice, snow, or sleet. For a neighbor’s tree, loss must be one of the perils insured under the personal property coverage. Debris removal coverage for fallen trees has been expanded to cover removal if a tree blocks a driveway or access to a ramp or other fixture used to assist a handicapped person entering or leaving the insured dwelling.

- Reasonable repairs. The homeowner’s policy reimburses the insured for the cost of loss mitigation efforts. This additional coverage creates an offset to ex post moral hazard. For example, the insured’s purchase of a plastic cover to protect the home interior from further loss caused by roof damage would be covered as a loss mitigation expense.

- Loss of use. The homeowner’s policy provides coverage for the loss of use of covered property that sustains direct damage. For this coverage to apply, loss of use must result from a covered direct damage loss to the insured dwelling.

- Additional living expense. The primary loss of use coverage is additional living expense, defined as any necessary increase in living expenses incurred by insureds to maintain their normal standard of living. For example, if a dwelling is severely damaged by fire, the cost of temporary lodging is a necessary increase in normal living expenses. Food costs may be higher than usual, with the increased amount reimbursed by this coverage. There may be other living expenses higher than normal, such as transportation and laundry expenses.
• **Fair rental value.** If a portion of the insured dwelling is rented or held for rental, the indirect loss of not being able to rent this space is covered. The loss of rent less any rental expenses that do not continue during the period of untenantability is paid.

• **Civil authority.** Orders of a civil authority that require the insured to temporarily vacate the premises constitute a covered loss of use. Thus, if a neighbor’s house sustains explosion damage from the rupture of a gas line and the entire neighborhood must be evacuated for several days, loss of use coverage applies.

• **Loss assessment.** Homeowners who are members of condominium or homeowners’ associations usually have an exposure to a special assessment in case of direct loss or damage to association property owned collectively by the members. This additional coverage provides up to $1,000 for an insured’s share of such an assessment.

• **Credit card, electronic fund transfer card or access device.** This coverage provides up to $500 coverage for an insured’s loss due to unauthorized use of a credit card or debit/ATM card as well as loss by forgery or the receipt of counterfeit money (the maxing out of a credit card by a spouse is not considered unauthorized use!). This limit is deemed adequate since federal law limits a cardholder’s responsibility to $500 per card. The prompt reporting of lost or stolen credit cards reduces or eliminates any legal obligation of an insured. The policy deductible does not apply to this type of loss.

<table>
<thead>
<tr>
<th>Insight A3-2  Named Perils in the Broad Form of Property Insurance Policy (U.S.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire or lightning</td>
</tr>
<tr>
<td>Explosion</td>
</tr>
<tr>
<td>Aircraft</td>
</tr>
<tr>
<td>Smoke</td>
</tr>
<tr>
<td>Theft</td>
</tr>
<tr>
<td>Weight of ice, snow or sleet</td>
</tr>
<tr>
<td>Sudden and accidental tearing apart,</td>
</tr>
<tr>
<td>cracking, burning or bulging</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table A3-2  Causes of Homeowner Insured Losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause of Loss</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Property damage:</td>
</tr>
<tr>
<td>Fire, lightning and debris removal</td>
</tr>
<tr>
<td>Wind and hail</td>
</tr>
<tr>
<td>Water damage and freezing</td>
</tr>
<tr>
<td>Theft</td>
</tr>
<tr>
<td>Othera</td>
</tr>
<tr>
<td>Liability:</td>
</tr>
<tr>
<td>Bodily injury and property damage</td>
</tr>
<tr>
<td>Medical payments and other</td>
</tr>
<tr>
<td>Credit card and otherb</td>
</tr>
</tbody>
</table>

*a Includes miscellaneous.

*b Includes all other causes of loss not shown separately.
Note: Data exclude tenants and condominium owners insurance.

a Data includes vandalism and malicious mischief.

b Data includes coverage for unauthorized use of fund transfer cards, and forgery and counterfeit currency.

Source: ISO; also available at http://www.iii.org/media/facts/statsbyissue/homeowners/

**Covered Causes of Loss**

The perils covered distinguish the various forms of homeowner’s insurance. Two approaches are used.

- **Named perils approach.** The traditional approach to determining the covered causes of loss in property insurance is the named perils approach, where the covered perils are specifically listed in the policy. Perils not listed are excluded. Insurers normally aggregate a set of perils that are generally desired by the public. The so-called broad form perils, shown in Insight A3-2, include many of the most common causes of loss to homeowners.

  The peril of theft, included in all forms of homeowner’s insurance, deserves special attention. **Theft** is defined in the policy to mean loss of property from a known place when it is likely that the property has been stolen. This definition is broad and favors the insured in establishing a covered loss.

  Table A3-2 shows the percentage of homeowner insured losses by the cause of loss.

- **All risk approach.** An alternative to naming the perils covered is to specify those perils that are not covered. The **all risk (special form) approach** states that all direct loss to property is covered except for those perils specifically excluded from coverage.

  An advantage to the homeowner of all risk coverage is that, if a unique or unusual peril causes property damage, coverage could apply if the cause of loss is not specifically excluded. With the named peril approach, unique perils are unlikely to be listed as a covered cause of loss.

  Another advantage of the all risk approach is that the burden is on the **insurer** to prove that one of the exclusions applies, whereas, under the named peril approach, the **insured** must prove that the cause of loss is a covered peril. The burden of proof difference can be advantageous to the insured in complex contested claim situations.

  The all risk approach is most commonly followed with real property coverage, that is, the coverage for the dwelling and other structures in a homeowner’s policy. The broad form named perils coverage usually applies to personal property coverage.

**Exclusions**

All insurance policies contain exclusions. Any analysis of the coverage provided by an insurance policy requires a careful examination of policy exclusions. Some of the common exclusions are as follows:

- **Correlated loss exclusions.** A desirable characteristic of insurable risks is independence, where there is low correlation among the insurable loss events. War and nuclear events can cause simultaneous loss to numerous properties in a single occurrence, violating the independence criterion.

  - **War.** Property damage resulting from warlike acts is considered uninsurable in the private sector. **War** is usually defined to include civil war, insurrection, rebellion or revolution, including acts of a military force representing a government. This definition does not include, however, the acts of terrorists not linked to a sovereign entity.

  - **Nuclear hazard.** The nuclear hazard is excluded in all property insurance policies. This includes any nuclear reaction, radiation or radioactive contamination.

- **Localized loss exclusions.** Homeowner’s insurance is designed to cover property loss exposures that are universal. Loss exposures unique to a geographical area are usually excluded, with coverage available by endorsement or as a separate policy.
Insight A3-3  Mold – The Asbestos of the New Millennium

One of the greatest loss potentials facing insurers is mold! Mold is a two part problem—damage to property and the health of inhabitants. To make matters worse, the presence of mold seems to be a much wider problem than ever imagined. The more humid states in the south and southwest seem prone to the existence of mold. Mold claims in Texas, for example, have been rising at an alarming rate.

Homeowner’s insurers were quick to exclude damage caused by “mold and fungus.” However, some insurance regulators objected. Litigation has already led to a Texas family being awarded $32 million in a highly publicized toxic mold lawsuit. The insurer was charged with failure to properly cover the necessary repairs from a water leak, thus allowing toxic mold to literally destroy the house. The family was forced to vacate their mold-contaminated home with just the clothes on their backs. The family also sustained some medical problems as well. On appeal, this award has been reduced.

Mold has become an insurance issue among property insurers. Special seminars are being held on the subject. The plaintiffs’ bar is also gearing up to use mold as a replacement for pollution and asbestos in the new millennium.

Flood. In the U.S. insurance market, the homeowner’s water damage exclusion specifically mentions “flood, surface water, waves, tidal water, over flow of any body of water, or spray from any of these, whether or not driven by wind.” Separate flood coverage is discussed later in this chapter.

Earth movement. Again in the U.S. market, this exclusion specifies that no coverage applies to property damage or loss covered by earthquake, volcanic eruption, landslide, subsidence or sinkhole. Coverage for these types of losses can be added by endorsement.

Accidental loss exclusions. Insurance responds to accidental loss events. Conversely, losses that are expected or intended to occur are excluded.

Intentional acts. Any loss arising out of any act an insured intentionally commits or conspires to commit is excluded. This moral hazard problem usually takes the form of arson or intentional damage or loss to personal property.

Maintenance losses. All property is subject of normal wear and tear, deterioration or mechanical breakdown. These types of losses, a natural part of the aging process, are excluded. This exclusion is of particular importance in all risk property forms. Examples of this type of excluded loss include wear and tear, deterioration, latent defect, inherent vice, rust, corrosion and dry rot.

Mold has become a significant problem recently. Mold, fungus or wet rot is normally excluded. However, an exception to the exclusion applies if the mold damage results from an accidental discharge of water that is hidden within the walls or ceiling. The extent of property damage and human health concerns related to hidden mold are a major national issue (see Insight A3-3).

Conditions

Homeowner’s insurance contains a number of policy conditions that define the duties and obligations of the parties to the contract. Some of these important duties of an insured following a loss are described below.

Prompt notice. The insured must give prompt notice to the insurer or its agent if a loss has occurred. No definition of “prompt” is included, but the insured should provide such notice as soon as practicable. Any unreasonable delay in notification can lead to coverage denial.

Thief notice. Any loss by theft is to be reported to the police. This obligation is included as a deterrent to moral hazard from fictitious theft claims. Any loss of credit or debit cards must be reported promptly to the issuing company.
• **Loss mitigation.** The insured is obligated to take any reasonable action to protect property from further damage following a loss. Any expenses incurred by the insured in this process are reimbursed by the insurer.

• **Inventory of damaged property.** The insured is asked to prepare an inventory of damaged personal property, including a description and some indication of value. In anticipation of such a requirement, the insured should document this information with inventory records, photographs or video coverage.

• **Loss settlement.** In most instances any loss to personal property is settled on an actual cash value basis. Homeowner's coverage can be enhanced by endorsement to provide replacement value coverage for personal property losses. This endorsement is described later in this chapter.

Any damage to real property (dwelling and other structures) is settled on a replacement value basis with no deduction for depreciation if the insured satisfies an insurance-to-value requirement. The insurance-to-value or coinsurance provision requires the insured to maintain a policy limit on the dwelling equal to or exceeding a certain percentage (e.g., 80 percent) of the dwelling's replacement value. As long as the insured satisfies this insurance to value requirement, any loss to the dwelling or other structures will be settled on a replacement value basis up to the policy's stated limit. If this requirement is not met, the insured can be penalized and not paid the full replacement value of the loss. See Insight 22-1 for an example.

If the insurer and insured fail to agree on the amount of loss, either party may demand an appraisal of the loss. Each party chooses an appraiser, with the appraisers selecting an umpire to facilitate the appraisal process. Any differences between the appraisers are submitted to the umpire. The result of this process determines the insurer's obligation in an efficient and timely manner.

**Endorsements**

While the homeowner’s policy provides a wide range of property coverages, it does not meet all possible coverage needs. Several endorsements are available to accommodate special needs.

• **Scheduled personal property endorsement.** Individuals who own personal property whose values exceed standard policy limits often desire more adequate limits. This extra coverage can be provided with a scheduled personal property endorsement. Insurers may request an appraisal or bill of sale to verify the property’s value.

  Use of this endorsement offers several advantages. First, no disagreement exists as to the insured’s property existence or its valuation in case of a claim. This endorsement uses an agreed value feature under which the insured and insurer agree as to the property's insurable value prior to any loss. Second, coverage is provided on an all risk basis, not the more limited named perils coverage applicable to unscheduled personal property. Finally, no deductible applies to losses under this endorsement.

• **Personal property replacement cost endorsement.** The differing approaches to property valuation in homeowner’s insurance arise from concern over moral hazard. If replacement cost coverage were available for personal property losses, an incentive may have been created that increased the frequency of personal property claims. For example, an insured may intentionally damage a used couch to be reimbursed for a new one. Even though this moral hazard concern persists, most insurers offer an endorsement that permits the settlement of personal property losses on a replacement cost basis, with no consideration of depreciation.

  This endorsement is popular. Many insureds like the notion of being reimbursed for the full replacement cost of damaged personal property without having to bear the amount of depreciation in replacing the property.

**Flood Insurance**

The flood peril is clearly excluded from homeowner’s insurance and is not offered as an endorsement. Most property insurers are reluctant to offer flood coverage due to the lack of independence of flood losses and an adverse selection problem.

The Army Corps of Engineers maps flood hazard zones based on its assessment of the frequency and severity of flood damage. Owners of property located in these flood hazard zones generally must procure flood insurance as a condition of mortgage financing.
The need for flood insurance coverage and the void in the private insurance market are said to have motivated the creation of the National Flood Insurance Program (NFIP), although many question the belief that the private market, left to itself, would today fail to provide such coverage. The NFIP is, in reality, a joint venture of several parties. The federal government provides the ultimate risk bearing. The program is administered by the Federal Insurance Administration (FIA), a unit of the Federal Emergency Management Agency (FEMA). The federal government imposes land use requirements on local governments as a condition to participate in the flood program. Private insurers sell and service the flood policies. Insurance agents provide advice about flood insurance at the point of sale.

**Buying Considerations**

Several issues warrant careful consideration by homeowner’s insurance buyers.

- **Insurance to value.** Few exposures are as upsetting for a homeowner as experiencing a devastating loss only to discover that policy limits were insufficient to replace the home. Proper insurance to value is a two part problem. First, the replacement value of the dwelling must be estimated. Insurance agents and insurers can help in estimating a dwelling’s replacement value. Many advisors recommend insuring to the full replacement value as the dwelling limit.
  
  Second, the dwelling limit should be updated periodically, as replacement values increase over time. Many insurers offer an *inflation guard endorsement* that automatically increases the dwelling limit by a fixed percentage, usually on a quarterly basis. For example, a 6 percent inflation guard feature increases the limits by 1.5 percent each quarter. Another approach to systematically increase policy limits is indexing. Insurers use construction cost indexes for local areas to adjust policy limits. Indexing tends to be more accurate than the fixed percentage approach in that it recognizes local differences in construction costs.

- **Premium.** The premium charged by insurers greatly influences buyer decision making. Insurance premiums can vary greatly, depending not only on the particular form and coverage limits selected, but also on the insurer’s operating efficiency and marketing objectives. In a competitive market, no two insurers are likely to offer coverage for the same premium. For example, Table A3-3 offers premiums quotes by several insurers for two types of properties in Phoenix and Tucson, Arizona for essentially identical coverage.

Insurers base premiums on several factors, each of which is associated with expected loss frequency and severity. Obviously, the higher the policy limits purchased, the higher the premium. Similarly, the more extensive the coverage, the higher the premium!

Loss frequency and severity varies depending on dwelling construction, so premiums vary similarly. Construction factors also affect underwriting acceptance decisions by insurers.

The location of a dwelling is important for two reasons. First, some geographic areas are exposed to special hazards, such as brush fires, high crime rates or natural disasters. Some insurers refuse to provide coverage in such local areas, *redlining* the area to alert underwriters and agents that they will not consider insuring homes here. This practice has been criticized by consumer groups. They feel the practice of disqualifying an area regardless of the risk characteristics of individual properties is unfairly discriminatory. Second, premiums vary with the availability and quality of local fire protection services. Such services are rated by the Insurance Services Office.

On average, older dwellings experience higher losses than newer ones, so they cost more to insure, other things being equal. Insurers often inquire whether the electrical, heating and plumbing systems of older dwellings have been updated. Insurers will not issue homeowner’s policies on some older homes. The standard homeowner’s policy contains a $250 per occurrence deductible. Higher deductibles lower premiums. Deductibles in the range of $5,000 to $10,000 are not uncommon with expensive homes. Finally, most insurers offer discounts for certain loss control fixtures. For example, an alarm system for fire or burglary usually warrants a 5–10 percent discount. Some insurers offer higher discounts if the alarm is monitored by a central station system. Automatic sprinkler systems result in a substantial premium credit.

It pays to compare the cost of homeowner’s insurance among several insurers. The internet facilitates comparison shopping. Insurers charge vastly different premiums for comparable coverage as noted earlier. The service component of homeowner’s insurance is important. The state’s insurance regulator often can provide qualitative information on insurers through complaint ratios.
Table A3-3  Homeowner’s Insurance Premium Comparison

Property: A two story, single family dwelling with single-cylinder dead-bolt locks, one fire extinguisher, and two smoke detectors; Excellent condition, masonry or frame (composition roof), built in January, 2006.

Coverages: dwelling $300,000; other structures $30,000; contents $225,000; additional living expense $30,000; personal liability $300,000; and medical payments $1,000 with a $500 deductible.

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Phoenix Masonry</th>
<th>Phoenix Frame</th>
<th>Tucson Masonry</th>
<th>Tucson Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Services Automobile Association</td>
<td>$581</td>
<td>$566</td>
<td>$504</td>
<td>$508</td>
</tr>
<tr>
<td>Allstate P&amp;C</td>
<td>$791</td>
<td>$866</td>
<td>$655</td>
<td>$691</td>
</tr>
<tr>
<td>State Farm</td>
<td>$844</td>
<td>$844</td>
<td>$658</td>
<td>$658</td>
</tr>
<tr>
<td>Safeco</td>
<td>$1,031</td>
<td>$1,031</td>
<td>$728</td>
<td>$728</td>
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<tr>
<td>Farmers</td>
<td>$1,379</td>
<td>$1,442</td>
<td>$802</td>
<td>$802</td>
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<tr>
<td>Federal</td>
<td>$1,817</td>
<td>$1,817</td>
<td>$1,817</td>
<td>$1,817</td>
</tr>
</tbody>
</table>

Source: Arizona Department of Insurance (2007).

Personal Automobile Insurance

Personal automobile insurance is similar to homeowner’s insurance in that property and liability insurance are combined into a single contract. The personal automobile insurance policy differs from the homeowner’s insurance concept in that the former uses a modular approach where the insured selects the coverages desired. Figure A3-1 depicts the coverage options.

As auto liability insurance is mandatory in most U.S. states, the Part A liability coverage is included in almost all personal automobile policies. The Part B medical payments coverage provides medical expense reimbursement for automobile-related injuries to insureds and occupants of their vehicles. The uninsured motorists coverage provides recovery if a negligent party causing injuries to an insured has no automobile liability insurance and is not financially capable of meeting his or her legal obligations. These coverages are discussed in the next chapter.

Part D, titled "Coverage for Damage to Your Auto," is often referred to as physical damage coverage and is discussed here. This form of property insurance is optional. If the purchase of an auto is financed, however, the lender requires the borrower to purchase physical damage coverage. If a vehicle is leased, the leasing company will also require this coverage.

Property Covered

The Part D insuring agreement states that the policy pays for direct and accidental loss to “your covered auto” and any “non-owned auto.” The definitions contained in the automobile policy play a major role in determining the scope of coverage.

In most instances, the automobile or automobiles owned by insureds are described in the declarations section of the policy and are “your covered auto.” Newly acquired vehicles are also covered if the insurer is notified within 30 days of acquisition. If the new vehicle replaces an insured vehicle, the 30 day notice is necessary only if existing coverage is to be changed. Leased vehicles are treated as if owned.

Automobiles not owned by or furnished for the regular use of an insured are non-owned automobiles. Temporary substitute automobiles, used while a covered automobile is out of normal use because of breakdown, repair, servicing, loss or destruction, are covered.

A short-term rental car is also a non-owned automobile. Renting a car on vacation for 10 days satisfies this definition and is covered under the physical damage section of your automobile policy. When renting an automobile, questions often arise as to the need to add physical damage coverage for the rented vehicle to the automobile rental agreement. This dilemma is discussed in Insight A3-4.
Insight A3-4  The Rental Car Dilemma

A sometimes frustrating consumer decision is whether to purchase the collision damage waiver (CDW) option when renting a car. The CDW waives the rental car company's right to hold the renter responsible for any damage to the rental car. Most individuals are unsure whether they need this expensive coverage. The physical damage coverage provided in a personal automobile policy provides coverage for this exposure. Also, some (but not all) credit card companies reimburse for damage to rental cars if the rental costs are charged against the card.

Unfortunately, this dilemma has no simple resolution. Some factors to consider are listed below.

- **Extent of waiver.** Determine if the waiver is a CDW or a loss damage waiver (LDW). Generally, a loss damage waiver is more advantageous to the consumer in that it waives the rental company's rights to recover for any loss, whether by collision or other type of loss, such as theft or vandalism. The CDW is usually limited to collision damage only.
- **Measure of loss.** The rental car company may include the repair cost, loss of use, towing expenses, and any diminished value as part of their loss. Reimbursement from an automobile insurer or credit card company may not use as liberal a definition of loss.
- **Cost sharing.** Deductibles under collision coverage apply to any collision damage to a rental vehicle. The CDW carries no deductible.
- **Timing of payment.** Rental car companies may demand immediate payment for their loss. Thus, individuals may have to pay for the loss out of their own pocket, then seek reimbursement from their automobile insurer or credit card company.
- **Vehicle limitations.** Some automobile insurers and credit card companies do not cover the rental of certain types of vehicles, such as vans, pickup trucks, sports cars or motor homes.

Covered Perils

Two distinct coverages exist under Part D: damage caused by collision and loss caused by a list of named perils other than collision. The term **collision** is defined as the upset of your covered automobile or a non-owned automobile or their impact with another vehicle or object. In most instances, collision means striking another vehicle, but automobiles may collide with other objects such as trees, houses, or trains.

The second coverage, **loss other than collision** (formerly known as comprehensive coverage) contains a list of covered named perils that may cause damage or loss to automobiles. This list in the typical policy includes the following perils:

- Missiles (not the ICBM variety) or falling objects;
- Fire;
- Theft or larceny;
- Explosion or earthquake;


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**Figure A3-1  Personal Automobile Insurance Options**
• Windstorm;
• Hail, water or flood;
• Malicious mischief or vandalism;
• Riot or civil commotion;
• Contact with bird or animal; and
• Breakage of glass.

Some covered perils are interesting, especially when compared to homeowner’s insurance. For example, the perils of flood and earthquake are covered in automobile insurance, but not in homeowner’s insurance. Running your car into a deer or cow on a road is a collision, yet is treated as an other-than-collision loss. Most collision claims result from the negligence of the driver, with a significant deductible as a cost-sharing feature. Other-than-collision losses generally do not involve negligence, and a smaller deductible applies.

Table A3-4   Comparison of Automobile Insurance Premium in Selected U.S. States (2005)

<table>
<thead>
<tr>
<th>State</th>
<th>Rank</th>
<th>Liability</th>
<th>Collision</th>
<th>Other Than Collision</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Expensive:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Jersey</td>
<td>1</td>
<td>$751</td>
<td>$403</td>
<td>$183</td>
<td>$1,184</td>
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<tr>
<td>District of Columbia</td>
<td>2</td>
<td>$627</td>
<td>$446</td>
<td>$270</td>
<td>$1,182</td>
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<tr>
<td>New York</td>
<td>3</td>
<td>$765</td>
<td>$338</td>
<td>$159</td>
<td>$1,122</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>4</td>
<td>$724</td>
<td>$339</td>
<td>$139</td>
<td>$1,113</td>
</tr>
<tr>
<td>Louisiana</td>
<td>5</td>
<td>$665</td>
<td>$358</td>
<td>$208</td>
<td>$1,076</td>
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<tr>
<td>Least Expensive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kansas</td>
<td>47</td>
<td>$301</td>
<td>$244</td>
<td>$205</td>
<td>$590</td>
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<tr>
<td>Idaho</td>
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<td>$339</td>
<td>$236</td>
<td>$133</td>
<td>$583</td>
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<tr>
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<td>$214</td>
<td>$565</td>
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<td>$290</td>
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<td>$555</td>
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<tr>
<td>North Dakota</td>
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<td>$259</td>
<td>$209</td>
<td>$254</td>
<td>$554</td>
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<tr>
<td>National Average</td>
<td>496</td>
<td>$309</td>
<td>$143</td>
<td>$829</td>
<td></td>
</tr>
</tbody>
</table>

Note: Average expenditure=Total written premium/liability car years. A car-year is equal to 365 days of insured coverage for a single vehicle.


Table A3-4 shows the average annual premiums for automobile insurance in selected states in the year of 2005. From the bottom of the table, we find that the average premium for collision coverage is several times the average premium for other-than-collision coverage. Average premiums vary considerably from state to state. New Jersey takes the prize as the highest cost state, with an average automobile liability premium of $751 and an average physical damage premium of $586 ($403 for collision and $183 for loss other than collision). The lowest cost state was North Dakota, with an average liability premium of $259 and physical damage premium at $452 ($309 collision and $143 loss other than collision). Care to speculate why these state differences are so dramatic?

**Exclusions**

The personal automobile policy contains a long list of exclusions. Instead of listing each exclusion, the more significant restrictions in coverage are discussed below using a classification scheme based on the nature of the exclusion.

- **Use of the vehicle.** Any loss that occurs while an insured vehicle is being used in high risk activities beyond personal use is excluded. Thus, using a vehicle as a taxi is excluded. This exclusion does not apply to a share-the-expense car pool. The use of an insured automobile in a racing or speed contest at a facility designed for racing is excluded. This exclusion does not apply to any racing on a public roadway!
• **Type of damage.** Any loss due to normal wear and tear or maintenance expense is excluded, as is loss from events normally considered uninsurable, such as radioactive contamination, war, insurrection, rebellion, etc. Also excluded is loss caused by the destruction or confiscation of any insured property by governmental or civil authorities.

• **Electronic equipment.** A wide variety of electronic equipment can be found in automobiles: radios, tape decks, CD players and cell phones. If this equipment is permanently installed in the covered automobile or removable from a housing unit that is permanently installed in the covered automobile, coverage exists for damage or loss. If not, coverage is excluded. For example, CD players or radios built into the dash of the car are covered property. The cellular phone in the glove compartment is not. Radar detectors are specifically excluded.

• **Custom furnishings.** Some individuals modify vehicles with customized furnishings, such as carpeting, camping equipment, decals or other enhancements. Mini-vans are often customized to enhance their utility. This added value is not covered in the basic policy, but can be covered by endorsement for an additional premium.

### Additional Coverage

The physical damage section of the personal automobile policy contains some additional coverages. Transportation expense coverage is an integral part of this section of coverage. Other coverages are optional and offered as an endorsement.

For example, the transportation expense extension covers indirect losses from loss of use of a covered vehicle. Two items are important here. First, the cause of the loss of use must be an event covered under the collision or other-than-collision coverages. For example, loss of use due to mechanical breakdown is not covered. Second, payment is capped with a per-day limit (e.g., $20) and the maximum limit per occurrence (e.g., a maximum of $600 or 30 day period). Some insurers provide a higher daily benefit or offer an option to increase this limit.

A popular endorsement to the basic policy coverage is reimbursement for the costs of any towing or emergency road service required for a covered automobile. This “towing and labor” coverage is usually with a limit, such as $100 per disablement. Similar coverage is often provided through automobile club membership.

### Buying Considerations

Two issues often arise with automobile physical damage insurance. First, is it wise to purchase physical damage insurance for older vehicles? Second, do higher deductibles make sense?

Physical damage insurance is property insurance for the vehicle. As with other forms of property insurance, the premium is a function of the value of the property. However, in automobile physical damage insurance, this is true only to a point.

Over time the value declines, and the premium valuation base is reduced, resulting in a lower premium. However, at some point (usually about six years), the value used for pricing purposes is fixed, even though the vehicle’s value continues to decline. In other words, after this time period, the value used for pricing purposes is greater than the value used for loss payment purposes. This effectively results in an increase in the insurance rate charged; that is, the ratio of the premium to the property value increases. Therefore, once the age of the automobile is greater than this break point, the economics of continuing to carry automobile physical damage coverage is problematic.

In most instances deductibles are required for both collision and other-than-collision coverages. The collision deductible is usually higher. Increasing the deductible reduces the premium. However, is increasing the deductible always a wise decision?

Assume the collision premium is $500 per year, with a $250 per loss deductible. Suppose the insurer offers a $50 premium credit for a $1,000 deductible. Let’s analyze this offer. The cost is an additional $750 for any collision loss greater than $1,000. The benefit is $50 per year. If we expect such collision claims to be less frequent than one every 15 years ($50 x 15 = $750), the offer should be accepted. Conversely, if such claims are likely to be more frequent than one in 15 years, taking the offer may not make sense.
SUMMARY

Property losses are common for individuals and families. Fortunately, most property loss or damage is small. Many of these losses are borne by the property owner, with repair or replacement treated as a household expense. More significant losses, however, are generally covered by homeowner's insurance or personal automobile insurance. It is wise to become familiar with these two individual insurance contracts, since they will be called on to provide needed financial protection.

DISCUSSION QUESTIONS

1. Discuss the relative importance of tangible property to intangible property in the information age.

2. Discuss the application of the following risk control techniques to the damage or loss of a personal automobile:
   a. Avoidance
   b. Loss prevention
   c. Loss reduction

3. Assume a dwelling is insured for $200,000 using an HO-3 homeowner's policy. The estimated replacement value of the home is $250,000.
   a. How much coverage is provided for:
      i. Personal property loss
      ii. Indirect loss
   b. A severe windstorm damaged the roof of the house. The replacement value of the loss is $3,000, while the actual cash value of the loss is estimated at $2,200. How much is payable under this homeowner's policy?
   c. Should the dwelling limit of $200,000 be increased? Explain.

4. You have been offered a broad form perils homeowner's policy with an annual premium of $400 versus an all risk policy priced at $500 per year. Which one would you select? Explain.

5. When renting an automobile, what factors should influence your decision to add on the collision damage waiver (CDW) to the rental agreement?

6. Identify and briefly describe the possible perils that would be included in the other-than-collision coverage.
Chapter A4

Personal Liability Loss Exposures

INTRODUCTION

Liability loss exposures arise when people are injured or their property is damaged because of another person's actions or failure to act.\(^7\) The financial and emotional impact of liability claims can be devastating to individuals and their families. The legal expenses can be significant, regardless of guilt or innocence. Settlements or court judgments can deplete one's wealth and future income. Finally, the entire process of investigation, negotiation and possibly litigation can be emotionally draining on all parties.

Individuals should be aware of the legal environment that governs the conduct of society and the rights and obligations of its members. Society creates laws that define the legal environment. Enforcement mechanisms are established to deal with violations of the law. Individuals, in their business and personal interactions with others, sometimes violate these laws. For example, an individual may violate the terms of a contract, causing harm to the other contracting party. Or the negligent driving of an automobile may injure another party. These and other similar events may result in a legal obligation of the offending party to the injured party.

Individual rights and responsibilities are defined by law. In Chapter 10, we discussed two major sources of law, namely, statutory law and common law. We also discussed that breach of the law can be criminal or civil in nature. A **crime** is a wrong committed against society. A **civil wrong** is an offense committed against another person.

**Civil wrongs** involve legal actions brought by one or more individuals against other individuals. Civil wrongs come in two varieties: breaches of contracts and torts. A **breach of contract** occurs when one party's failure to abide by a contract's terms and conditions harms the other contracting party. For example, if a tenant vacates an apartment prior to the end of a lease and discontinues rental payments, the landlord is harmed. The landlord could sue the tenant in a civil action for breach of contract to recover damages.

In Chapter 10, we defined a **tort** as a civil wrong resulting in injury to a person or damage to property. Torts are typically categorized as: (1) intentional, (2) negligence or (3) strict liability. Torts represent the most common legal liability exposures for individuals. The economic objectives of a tort liability system shift the costs of loss events to wrongdoers.

**Economic Objectives of the Tort System**

The tort system has two major objectives: creating incentives for safety and achieving an appropriate allocation of the cost of harm. To appreciate the first objective, consider a society where there is no accountability for the adverse consequences of one's actions. It would be "buyer beware" when it came to any injuries caused by products or services. Defensive driving would be the order of the day if careless driving carried no financial responsibilities. Employers would have no concern regarding the consequences of occupational safety and health, hiring and firing, or sexual harassment.

Fortunately, this is not the state of our society today. Individuals and businesses can be held responsible for their inappropriate actions or omissions. This feature of the tort liability system creates incentives for safe behavior and loss control activities. Product quality is important for many reasons, including the minimization of product liability claims. Driver training and incentive systems offer a payback in the form of fewer accidents and injuries. A safe work environment means fewer occupational accidents. It may also lead to higher productivity and improved morale.

\(^7\) The authors acknowledge with appreciation William R. Feldhaus (Georgia State University) as the principal author of this chapter.
It's important to realize, however, that these loss control activities have both potential benefits and costs. Reducing the tort liability exposure is a clear benefit. But does it justify the cost? In some instances, cost may be irrelevant to an individual if the loss control activity is mandatory. If it is optional, the loss control activity must meet some cost-benefit test before it is adopted.

For example, Figure A4-1 depicts the marginal benefit and marginal cost of safety activities. The extent of safety activity utilized will be at the intersection of these two functions. At this point people will still be injured, because the marginal cost of prevention is greater than the benefit derived from the safety activity.

The second economic objective of the tort system is achieving an appropriate allocation of costs within society. Common equity demands that wrongdoers compensate injured parties for their losses. The tort system determines both the existence and the extent of legal liability. Both of those determinations are critical. The existence of legal liability may have both economic and psychological importance to the injured party. A sense of justice secured may be every bit as important as a monetary award. The determination of damages may include compensation for injuries and property damages as well as any transactional costs of the tort liability process. Damages are discussed further in a later section.

Negligence

Let us now focus our discussion on negligence. Negligence actions involve conduct that does not meet expectations as to the standard of care. Negligence actions are by far the most common type of tort action against individuals. Some wrongful acts can be both a crime and a tort. For example, a physical assault is clearly a crime that violates the rules of society. Assault can also lead to a civil action when the injured party alleges injuries as a result of the commission of an intentional tort by the assailant.

The tort of negligence does not require intent to harm but merely conduct that involves an unreasonable risk of causing injury to another person or damage to another's property. The required standard of care is what a reasonable person of ordinary prudence would have done in the circumstances. In the eyes of law, four essential elements must be present for someone to be found guilty of a negligent act.

- **Existence of a legal duty.** To establish negligence, the injured party must first establish that the tortfeasor – the person causing the harm – had a legal duty to act (or not act). When operating an automobile on public roads, a legal duty to operate that vehicle safely. Homeowners have a legal duty to maintain their premises in a safe condition. Keep in mind that what is required is a legal duty, not necessarily a moral duty or obligation. Do you have a legal duty to feed the hungry or give shelter to the homeless? Do you have a legal duty to assist someone in distress? Normally the answer is no: however, you may feel morally obligated to assist those in need.

![Figure A4-1 Analysis of Safety Activities](image-url)
• Failure to perform that duty. If a legal duty exists, the next question asks if the tortfeasor exercised the appropriate care in performing that duty. The standard of care used is the reasonable or prudent person standard: what would a reasonable or prudent person have done under similar circumstances? Negligence exists when a person fails to exercise reasonable care in performing a legal duty.

In most negligence cases the standard is that of a reasonable person, not that of one possessing special skills or training. In professional liability claims, however, the standard bar may be raised in recognition of the person’s special skills or training, which would alter one's reasonable expectations. The standard of care expected of a cardiac specialist in open heart surgery is higher than that of a general practitioner required to perform the same surgery. The standard of care is adjusted to fit the circumstances.

• Injury or damages to the claimant. The third element in a successful tort action is the presence of injury or damages to the claimant. Tort actions call for the payment of damages by the negligent party. Damages come in two forms: compensatory and punitive. Compensatory damages are intended to make the claimant whole; i.e., to indemnify him or her for any injuries or damage arising from the negligent action. Compensatory damages can be economic or non-economic in nature, which we discuss using Insight 14-1.

Punitive damages are a form of punishment awarded by the courts as a response to the tortfeasor's gross negligence or a callous disregard for the interest of others. Punitive damages are intended to serve two purposes: punishment and deterrence. The punishment is economic in nature and aimed at the tortfeasor. The deterrence, however, is a message to society that this type of conduct will not be tolerated. Punitive damages are awarded in a limited number of tort liability actions.

• Causal linkage between negligence and damages. The final element necessary in a successful tort action is to show causality between the negligent act and the damages. Proximate cause is the necessary linkage between the negligent behavior of the wrongdoer and the injuries or damage sustained by the claimant. If no causal linkage exists between negligence and damages, there is no liability.

Common Law Defenses

The defendant in a tort action has several possible defenses. These include the following legal principles:

• Some jurisdictions recognize the contributory negligence doctrine that bars recovery if the injured person's own negligence contributed in any way to the loss event. For example, if a motorist stopped suddenly for no apparent reason and was rear-ended by another motorist, both drivers may be partially negligent (one for stopping and the other for following too close). The contributory negligence doctrine bars either driver from seeking recovery from the other.

• The contributory negligence doctrine can be harsh because compensation is not available for “innocent” or almost innocent parties. The majority of states follow a comparative negligence standard. The comparative negligence doctrine allocates the financial responsibility for a loss in proportion to each party's degree of fault. A jury trial normally determines the relative blame. Thus, if the plaintiff was 10 percent and the defendant 90 percent at fault, the plaintiff's recovery would be limited to 90 percent of his or her damages under the comparative negligence doctrine.

• The assumption of risk can defeat a negligence action if the injured person understood the risk inherent in a particular situation and voluntarily assumed the risk. This defense is commonly applied where spectators are injured while attending sporting events. Those who voluntarily choose to attend a hockey game realize that they could be injured by an errant puck. If a fan is so injured, the management of the arena or hockey team could invoke the assumption of risk doctrine as a possible legal defense. Of course, the management must realize that this may not be an absolute defense, and there is an expectation that reasonable efforts have been made to protect the public from such injuries.
Insight A4-1  Legislating Morality?

In most instances there is no legal obligation to “do the right thing.” You are free to help someone in need or stand on the sidelines and hope that someone else intercedes.

Some societies have created legislative incentives to encourage positive behavior. French law requires assistance of endangered persons. Thus, in the horrific automobile accident in Paris on August 31, 1997 that claimed the lives of Diana (Princess of Wales), Dodi Fayed (her companion) and Henri Paul (chauffeur), did the paparazzi in hot pursuit of their vehicle render the required assistance, or were they preoccupied with capturing the victims and accident scene with their cameras? Was medical assistance requested in a timely manner?

French magistrates cleared the paparazzi of these charges, but this accident renewed interest in exploring the responsibilities of individuals to provide assistance to others, especially when time is of the essence. (Interestingly, an inquest at the Royal Court of Justice (U.K.) decided in April 2008 that the gross negligent driving of the chauffeur and paparazzi photographers unlawfully killed Diana and Dodi Fayed.)

- Generally, no legal duty is owed to help someone in need. No law compels us to stop and to assist a motorist who has been injured in an automobile accident. Many people today are reluctant to assist in such situations, fearing possible liability if their good faith efforts are deemed negligent.
  
  **Good Samaritan statutes**, common in many jurisdictions, protect those who are willing to assist injured persons from liability arising from the assistance. Thus, a person trained in CPR who assists a heart attack victim is immune from liability under such a statute as long as the person acted reasonably in administering the CPR. These statutes seek to minimize possible disincentives associated with offering assistance.

  Some countries impose a duty to assist those in need. The tragic automobile accident involving Princess Diana and others involved just such a situation. See Insight A4-1.

RISK ASSESSMENT

Risk management begins with an assessment of the liability exposures faced by individuals and families.

**Sources of Liability**

Liability for individuals and families typically arises from one or more of the following:

- Ownership of property
- Ownership or operation of vehicles
- Personal or business activities

**Liability from Property Ownership**

Property owners may be held liable if someone is injured while on their premises. The injured person may argue that the injury was due to the property owner's failure to maintain the premises in a reasonable and safe condition. A UPS delivery person slips and falls on someone's snow-covered front steps. A child falls off a neighbor's swing set that is in need of repair. These and others are examples of potential premises liability situations for property owners.

Property owners are legally obligated to protect others from harm. Whether any liability exists turns on the degree of care owed by the property owner to the injured party. The degree of care required varies depending on whether the person is (1) a trespasser, (2) a licensee or (3) an invitee. See Insight 14-1 for definitions of these types of persons.

Given that we are examining personal risk management issues, we need to discuss the special care that property owners owe children who cannot easily discern dangerous situations. An **attractive nuisance** is a condition on a premises that can attract and injure children, such as a swimming pool, swing set, or play house. Property owners must take reasonable steps to keep children from being harmed. A fence around a pool, with a locked gate, is an example of reasonable care used by the property owner. Such loss prevention
may also be required by law or local regulation. Risk assessment should include a careful consideration of these conditions along with appropriate loss control to avoid any harm to children.

**Liability from Automobile Ownership or Operation**

Most adults own and operate automobiles. It comes as no surprise that the automobile is the most significant source of legal liability for individuals. The negligent operation of automobiles can result in significant injuries to others and damage to their property.

Generally, the owner of an automobile is not liable for damages caused when others are driving his or her automobile. Thus, if Ashley borrowed Kristen's car, Kristen will not ordinarily be held liable for any damages caused by Ashley's negligence. This general rule has exceptions, however. With **imputed negligence** (also called **vicarious liability**), one party is held liable for the acts of others. Thus, in some states, the **family purpose doctrine** holds the owner of the family automobile responsible for its negligent operation by family members. If a teenage driver causes injuries to others, the injured parties can take legal action against both the youthful driver and the parents. Likewise, an employer can be held liable for the wrongful acts of employees while operating vehicles within the scope of employment. This includes employees who operate their own vehicles as part of their employment.

**Liability for Personal or Business Activities**

The third source of liability for individuals and families arises from personal and business activities. While not common, personal activities sometimes result in damages to others that may lead to liability. Consider this not-so-uncommon scenario: Steve attends a party at your home where alcoholic beverages are served. Driving home from your party, Steve has an accident, causing injury to another person. The injured party may take legal action against both Steve and you because, as host of the party, you contributed to the negligent conduct. **Host liquor liability** is a form of vicarious liability wherein a host contributes to the negligent behavior of guests.

Another source of potential liability is animals. If the family pet bites a neighborhood child or jogger, can you be held liable? The answer is "yes." The determination of liability depends on the type of pet and any history of aggressive behavior. Certain breeds of dogs that are aggressive by nature can invoke absolute liability. Pets involved in previous incidents where bodily injury resulted may be assumed to be vicious animals. Some people keep exotic animals, such as large snakes, mountain lions and wolves. The animal owner typically will be absolutely liable for any injury caused by such animals.

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**Insight A4-X First Bite Free**

[http://www.dogbitelaw.com/PAGES/propensity.htm]

The first time that a canine attacks a human being, the paramount legal issue is the extent to which the state having jurisdiction adheres to the English common law pertaining to injuries inflicted by domestic animals.

The common law shielded the owner of a domestic animal from civil liability to the first victim of each of his animals. This absolving principle came to be known variously as the "one bite rule," the "first bite rule," or the "first bite free" rule.

However, it has been repeatedly stated in the court decisions that the name "one-bite rule" is a misnomer, in that the rule applies to any injury whether or not it was caused by a bite, and that proof of the dangerous propensity of the animal does not require the existence of a prior bite even in a biting case.

The rationale of the one bite rule was that domestic animals by definition were not injurious, and therefore liability could be predicated only on the defendant's knowledge that a particular animal had a propensity to behave in manner that was injurious to humans. Again, the rule applied to any type of injury, whether or not a bite.

The rule provided not only a shield for the animal's owner but also a sword for its victim, because it justified compensating any victim -- after the first one -- who was injured by the same dangerous propensity. The owner, keeper or harboring of the dog thus was held strictly liable when his domestic animal injured a subsequent person the same way it hurt a prior one.

English common law strict liability for canine inflicted injuries therefore was founded on the defendant's scienter (i.e., knowledge) of his dog's dangerousness. For that reason, this is often referred to as the "scienter cause of action," or as "common law strict liability." Since the gist of the tort, "is the keeping of a thing known to be dangerous, one who keeps or harbors an animal owned by another may be liable, if he has such knowledge. A bailee with scienter is of course liable." Prosser or Torts, chapter 10, section 57, page 441. The scienter cause of action can be directed against not only the dog's owner, but also its harboring or keeper:
A person, although not the owner of a vicious dog, may make himself liable to others by knowingly keeping or harboring the dog upon his premises, after knowledge of his vicious propensities, and this is true even when such keeping is without the consent and against the wishes of the animal's owner. ... The owner of an animal is the person to whom it belongs. Whether or not a person is a keeper depends upon the peculiar facts and circumstances of each individual case. A man may own an animal and yet not be its keeper. The word 'keeper' is equivalent to 'the person who harbors.' Harborin means protecting. So one who treats a dog as living at his house, and undertakes to control his actions is the owner or keeper within the meaning of the law; but the casual presence of an animal on his premises, if not so treated, does not constitute him such owner or keeper." (3 C.J.S. 1266, § 165.)

The one-bite rule underlies civil and criminal actions in modern America. When a person is bitten by a dog, 18 American states (listed in Legal Rights of Dog Bite Victims in the USA) use the one-bite rule to determine legal liability. The other 32 and the District of Columbia have abrogated or modified the one-bite rule by so-called "dog bite statutes." (The list of those states also is in Legal Rights of Dog Bite Victims in the USA.)

The dog bite statutes vary greatly. They might or might not apply to keepers and harborers as well as owners, and to injuries by means other than biting. They might provide for full compensation, or payment of just medical bills, or payment of medical bills and other economic losses (like loss of income), or double compensation under some circumstances. Some do not apply during the day, or if the dog owner posted a "bad dog sign," or if the victim had provoked the dog weeks before. Even though they are worded as strict liability laws, moreover, the court decisions permit a variety of defenses that vary from state to state. If the state law strict liability does not apply to a particular defendant, or does not provide sufficient compensation, the victim can still assert the scienter cause of action, because it is always available in every state.

In addition to civil laws, criminal laws which apply to the owners, keepers and harborers of dogs are generally based upon the one-bite principle, in that criminal liability usually does not result from dog attacks unless the dog previously engaged in similar behavior.

Source: Dog Bite Law (online) – to be edited and copyright to be secured

Settlement of Loss

Torts can impose several types of losses on individuals. When a person is found to be liable for another's injury or damage to someone's property, the wrongdoer should be required to compensate the injured party. Normally a settlement is negotiated among the parties involved. Occasionally, some form of dispute resolution may be necessary to reach a settlement. When a settlement cannot be reached, litigation may be necessary to resolve the dispute. A judgment is rendered when the defendant is found responsible for the plaintiff's injury or damage. Fortunately, the vast majority of disputes are resolved without the need for litigation.

Settlements negotiated directly among the parties or through alternative dispute resolution usually involve some expenses in addition to the actual settlement amount. With litigation, legal expenses and related investigative costs can represent a significant portion of the entire financial loss. Even when the alleged negligent party is found not liable and no judgment paid, legal expenses incurred in proving one's innocence can be enormous.

While the sums payable for settlements, judgments and legal expenses can be significant, the loss associated with the damage done to one's reputation in a community can dwarf these payments. This is especially true for individuals who enjoy a positive image and status in their community. This type of loss is not static. It can last a lifetime.

Tort Reform in the United States

The U.S. civil justice system has been criticized as costly, inequitable and inefficient. Several reforms have been suggested to improve the tort system. (Refer also to Chapter 14.)

Criticisms of the Civil Justice System

The main criticisms of the U.S. civil justice system focus on the number of lawsuits filed, the size of verdicts, the uncertainty of legal outcomes, the inefficiency of the system and the excessive delays in settling lawsuits.
The U.S. is at or near the top in many global economic measures, including the number of lawsuits. The U.S. is the most litigious society on the face of the earth.

Some debate exists as to the rates of growth in litigation in recent times. Some legal experts see an explosion in litigation, while others see the growth as a function of population change. A Rand Corporation study of the U.S. civil justice system identified three separate tort liability systems in the U.S.: routine lawsuits, high profile personal injury lawsuits, and mass tort lawsuits. The rate of growth in routine lawsuits, such as personal automobile litigation, seems a function of population growth. The growth rates in the other two categories, however, have been meteoric. The high profile personal injury lawsuits in such areas as products liability, professional liability and business torts have been well documented. Class action lawsuits in tobacco use, pollution and asbestos have resulted in billions of dollars in awards and legal expenses.

Some critics of the U.S. civil justice system describe the U.S. legal system as a lottery. The cost of participating for plaintiffs is modest in comparison to the potential gain. The contingent fee system employed by the plaintiffs’ bar encourages greater participation. Sustaining an injury or property damage may be a ticket for a big payoff in the U.S. tort system.

In theory a plaintiff must show that the defendant in a lawsuit was negligent and the negligence led to injury or damages sustained. Unfortunately for defendants, this theory does not apply in all cases. Some people feel that injured parties are entitled to some form of legal redress, regardless of blame. This theory of entitlement is especially evident when the defendant has considerable wealth. The defendant may be viewed as a “deep pocket” that is clearly able to pay.

The uncertainty creates numerous problems. Allegations with no merit may be paid off to make it go away, avoiding the uncertainty of the litigation process. Liability insurers do not like this uncertainty either. Higher liability insurance premiums are to some extent a reflection of this uncertainty.

**Tort Reform**

A number of reforms have been advanced to improve the U.S. tort liability system. These reforms focus on non-economic damages, punitive damages, joint and several liability, and the number of lawsuits.

- **Caps on non-economic damages.** How much should be awarded to an injured person with a back pain that lasts a lifetime? Such non-economic damages are real, yet they are often quite difficult to quantify. Several states put limits on the amount of non-economic damages that can be awarded in a case. Often, these tort reform statutes are targeted to medical malpractice claims. These limits are expressed as a dollar amount ($250,000 is most common), or as a percentage of the economic loss.

- **Limits on punitive damages.** As punitive damages are non-compensatory in nature, there is no obvious boundary for the amount of a punitive damage awards. Many extremely high tort awards have a significant punitive damage component.

  Suggested punitive damage reform starts with establishing a liability trigger that clearly describes the malice essential for establishing a punitive damage award. Closely associated with actual malice triggers is the need to require clear and convincing evidence to establish punitive damages liability. Tort reform proponents argue that proportionality should be required so that the punishment fits the behavior. Some states tax punitive damage awards so that society, not just the individual, benefits from the punishment.

- **Joint and several liability.** The common law rule of joint and several liability makes each defendant in a lawsuit potentially liable for the entire amount of the damages, regardless of the defendants’ relative degrees of fault or responsibility. This doctrine can result in a “deep pocket” defendant who, even when he or she may be slightly at fault, becomes responsible for the entire award because the other defendants are unable to pay their fair share. The effect of joint and several liability is to encourage plaintiffs to search for at least one defendant who financially capable of paying the requested damages.

  Tort reform advocates seek to replace joint and several liability with proportionate liability, where each party is responsible only for its share of the damages. Several states have abolished joint and several liability for defendants who are less than 50 percent responsible for the damages.

- **Frivolous lawsuits.** We live in a litigious society. The number of lawsuits in the U.S. has increased dramatically. Does this mean that we as a society use less care in our interaction with each other? Maybe, but one factor that has contributed to the increase in the number of lawsuits is that more frivolous lawsuits are filed today than ever before. Some people see tort liability as a lottery, with a chance to strike it rich. Unfortunately, some lawyers will take frivolous cases on a contingency fee basis which allows them to share proportionally with the plaintiff if they win.
To reduce the number of frivolous lawsuits many have recommended assessing the loser all legal fees and court costs. This loser pays rule is followed in other countries and deters meritless lawsuits. Some question whether such a rule unfairly deters rightful claims. This issue continues to be debated.

RISK CONTROL

Individuals and families have some control of their liability loss exposures. Avoidance can be used in extreme cases. In other situations, loss prevention and reduction can be utilized.

Avoidance

The discussion of avoidance relating to property exposures in Chapter A2 applies equally well to individual liability exposures. For most individuals, the ownership and use of automobiles is by far the most significant source of liability. Is it practical to avoid automobile ownership or use completely, thereby eliminating any automobile liability exposure? Except for those who live in large metropolitan areas, the usual answer is "no," for our pattern of living and working make the personal automobile a transportation necessity.

One special case of avoidance that deserves mention is the controversial issue of youthful drivers. When should young persons be eligible to drive an automobile on the public roads? Clearly, their physical skills are excellent, but their judgment and experience are yet to be fully developed. The statistics concerning young drivers are frightening to many. Figure A4-2 compares the proportion of young drivers in the overall population of licensed drivers with their involvement in fatal accidents. This figure indicates that young drivers (age 24 and under) represent 35.9 percent of all fatalities in 2004. This alarming statistic should be a factor in determining when and the circumstances under which a young person should be allowed to use the family automobile.

![Figure A4-2 Number of Alcohol-related Fatalities by Age Group](http://www.niaaa.nih.gov/Resources/DatabaseResources/QuickFacts/TrafficCrashes/crash04.htm)

At the other end of the spectrum, there is a concern about elderly drivers who may experience physical or cognitive difficulties. How are their hearing and vision? Do they have medical conditions that could create a driving hazard? Some states screen elderly drivers at license renewal to determine if they still possess the necessary skills to drive safely.
Loss Control

So if avoidance is impractical or difficult to implement, what can be done to reduce the likelihood and severity of a liability claim? The most important issue dealing with residential risks is to assess the hazards present and eliminate or moderate them. Are the sidewalks (assuming you are lucky enough to have sidewalks) and the walkway leading to your home in good repair? Are the walkway and any steps leading to your door well lighted? Snow and ice removal may be an issue in some areas. Some jurisdictions hold the property owner liable for any accidents arising from the failure to clear walkways. Are there any attractive nuisances that need some loss control attention?

The host liquor liability exposure receives a great deal of attention. If you host a party at which alcohol is served, be sure your guests use moderation. If a guest is unable to drive safely, arrange suitable transportation. Drinking by minors cannot be tolerated. The courts hold parents who make available alcoholic beverages to underage persons accountable for any resulting injuries or damage.

Loss control efforts dealing with automobile risks have focused at the end points of the driver age continuum: young drivers and older drivers. With young drivers (between 15 and 20 years old) several approaches are being utilized. Several states have lowered the blood alcohol content (BAC) limits for young drivers so that severe penalties can be imposed for driving under the influence. A growing number of states have implemented a graduated driver’s license for young persons between the ages of 15 and 18 to provide a training period to improve driving skills and habits before receiving full driving privileges. The National Highway Traffic Safety Administration (NHTSA) defines graduated licensing as a three stage process.

- **Stage 1 (learner’s permit).** It requires a vision test, road knowledge test, driving accompanied by a licensed adult, safety belt used by all vehicle occupants, a zero BAC level, and six months with no accidents or traffic violations.
- **Stage 2 (intermediate license).** It requires the completion of Stage 1, a behind-the-wheel road test, advanced driver education training, driving accompanied by a licensed adult at night, and twelve consecutive months with no accidents or traffic violations.
- **Stage 3 (full license).** It becomes available upon successful completion of Stage 2 requirements.

RISK FINANCING

The liability loss potential for most individuals and families has a catastrophic loss potential. In most instances, the realization of this loss potential leads to the purchase of liability insurance to protect the wealth and financial stability of the family.

Approaches for Compensating Automobile Accident Victims

The automobile inflicts greater injury and damage than any other instrumentality in society. Consequently, the government imposes special rules regarding the ownership and use of automobiles.

Financial Responsibility Laws

U.S. states with financial responsibility laws require motorists involved in automobile accidents to prove that they possess some financial capacity to respond to future automobile liability claims. This proof of financial responsibility is normally satisfied by the purchase of automobile liability insurance with policy limits equal to or greater than the state’s required minimum limits. If a motorist involved in an accident does not have liability insurance at the time of the accident, he or she will be required to purchase the coverage. Of course, this is of little comfort to those injured in the original accident, which illustrates this weakness of financial responsibility laws.

The required minimum limits vary by state. The limits are expressed in terms of bodily injury liability and property damage liability. The minimum bodily injury limit contains a “per person” and “per occurrence” limit. For example, the minimum bodily injury limit in Virginia is $25,000 per person and $50,000 per occurrence. An automobile liability policy that contains these limits would pay a maximum of $25,000 for damages for a single injured person and up to a maximum of $50,000 for damages in any one occurrence, regardless of the number of injured persons. These limits may be inadequate in cases of serious injury or multiple claimants. More is said on the limits adequacy issue later.

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8 Also, see Table 10-3 for a comparison of automobile liability coverage limits in other countries.
There is also a separate minimum limit for property damage liability. In Virginia, the required minimum limit is $20,000 per occurrence. Again, this amount may be inadequate to cover one's financial responsibility. Consider negligence resulting in the total loss of a new Lexus or a chain collision on an expressway involving ten vehicles. The $20,000 property damage liability limit would be grossly inadequate to respond to this property damage potential.

**Compulsory Insurance Laws**

Financial responsibility laws are often referred to as first bite laws because they apply only after an automobile accident. By contrast, **compulsory insurance** laws mandate the purchase of automobile liability insurance as a condition to owning an automobile. Usually verification of the mandatory minimum automobile liability limits is an integral part of the vehicle licensing process. In addition, automobile insurers are usually required to furnish their insureds with identification cards that document the existence of the minimum liability coverage. Motorists may be required to present their insurance identification cards as part of an accident investigation or traffic stop. Failure to have this proof of insurance can result in a fine or loss of license in some states.

**No-Fault Laws**

About half of the U.S. states have **no-fault laws** that offer first-party benefits for bodily injuries in lieu of seeking payments from negligent drivers. No-fault systems offer the potential of a more efficient and satisfying compensation mechanism for the payment of minor automobile bodily injury claims. No-fault laws have two important features: the nature of the first-party benefit and the tort limitations imposed by the statute.

The centerpiece of any no-fault law is the first-party benefit added to the automobile insurance policy. The specifics of this benefit vary by state, but the common elements include coverage for the following arising from bodily injuries: (1) medical expenses, (2) loss of wage, (3) essential services expenses, and (4) funeral/survivor benefits.

No-fault benefits are provided to injured persons without regard to fault. Those injured in automobile accidents do not have to worry about negotiating with negligent drivers or their insurers. Fault is not an issue. Benefits are provided directly to injured parties. This feature adds both convenience and more timely payments for bodily injury claims.

States with no-fault laws have similar benefits packages, but differ regarding tort restrictions. No-fault laws can be categorized as follows:

- **Pure no-fault.** The original no-fault concept called for the elimination of all automobile bodily injury litigation. The trade-off was unlimited medical expense reimbursement and loss of wage benefits from the injured party's insurer. To date, no U.S. state has adopted this pure no-fault approach.

- **Modified no-fault.** The modified no-fault approach limits an injured person's right to sue by defining thresholds below which suits are barred. Suits are permitted if the threshold is met. Thresholds can be monetary or verbal. A **monetary threshold** requires that economic damages exceed a certain amount ($500~$2,000) before the injured party can sue for damages. Once that threshold is satisfied, the injured party can sue for both economic and non-economic damages. A **verbal threshold** limits the right of action to serious injuries, such as death, dismemberment, disfigurement, or permanent loss of a bodily member or function. If injuries sustained do not meet this definition of a serious injury, recovery is limited to the direct no-fault benefits provided by the injured party's insurer.

- **Choice no-fault.** Critics of no-fault statutes often point to their "all or nothing" character. **Choice no-fault plans** allow motorists to choose between the traditional tort system or a no-fault approach to recovery. Usually the no-fault option offers the advantage of a lower premium. Kentucky, New Jersey and Pennsylvania have adopted choice no-fault plans.

- **Add-on plans.** **Add-on plans** provide first-party no-fault benefits with no restrictions on an injured party's right to sue. This approach appeases no-fault critics who object to limiting one's right to seek recovery from a wrongdoer. The idea here is that if you provide a comprehensive and convenient source of recovery from your own insurer, there is less incentive to consider litigation.
Much debate surrounds no-fault. The supporters of the no-fault concept tend to focus on the alleged defects of the tort liability system in compensating those injured in automobile accidents, including the following:

- **Fault determination.** The determination of fault in automobile accidents is not always easy. Sorting out responsibility for an accident can be complex, leading to excessive frictional costs and delay.

- **Inequity in compensation.** The tort system results in smaller claims being overpaid and large claims being underpaid. The desire to dispense with the numerous small claims that arise in automobile accidents often leads to settlement offers in excess of actual damages. With large claims, however, the injured party may not be in a financial position to allow a lengthy settlement process to determine a just compensation. The injured party may be willing to settle now for an amount less than the actual damages.

- **Frictional costs.** The tort system is known for its high transaction costs. Attorney involvement on both the plaintiff and defendant side adds substantial costs. The Insurance Information Institute estimates that 11 percent of automobile insurance premiums written in 2006 represents attorney fees.

  The hoped for lower frictional costs, however, have not been realized. This is due to the structure of no-fault systems in use. The add-on no-fault statutes do nothing to the existing tort liability system. The modified no-fault systems usually set thresholds so low that tort rights are preserved in most automobile accidents.

- **Delay in compensation.** One of the most frustrating aspects of the tort liability system is the long time it sometimes takes for the injured person to receive compensation from the negligent party. Accident investigation and settlement negotiation can be time consuming. If litigation is necessary, the delay can be excessive.

The track record of no-fault has been mixed. A no-fault approach clearly provides a more direct form of compensation. The benefits are described in the policy, and fault is not an issue. This compensation scheme provides the injured person with a timely, equitable, and reliable source of benefits.

Finally, the fear that no-fault systems might lead to less responsible drivers has not materialized. A recent study by the Rand Institute for Civil Justice found no significant relationship between a state’s adoption of a no-fault system and the fatal accident rate, overall accident rate, and other measures of driver care. Driving carefully seems to be a function of self-preservation, not the threat of being sued.

**Personal Automobile Insurance**

The preceding chapter discussed the physical damage coverage provided in personal automobile insurance. This chapter completes the content of the personal automobile policy by examining the following additional coverages:

- Liability coverage
- Medical payments coverage
- No-fault coverage
- Uninsured motorists coverage

**Liability Coverage**

Liability coverage, compulsory in most U.S. states, is the heart of the personal automobile policy. In the "insuring agreement" of the typical policy, the insurer promises to pay for damages for bodily injury or property damage for which any insured becomes legally responsible because of an automobile accident. The insured is commonly defined as follows:

- The person named in the policy (named insured), spouse (if resident in the same household) and any family member. **Family members** include any person related to named insured by blood, marriage or adoption who is a resident of the household. There are two key items here. First, named insureds are covered for both direct liability and vicarious liability arising from the negligent acts of others. Second, if an insured borrows another automobile, he or she has liability coverage, even if the owner of the automobile has none.
• Any person using an insured automobile is insured on the same basis as the named insured and family members.

• Any person or organization legally responsible for the acts or omissions of a covered driver is also defined as an insured. For example, if an insured is using her automobile as a Red Cross volunteer, the Red Cross is an insured.

The insuring agreement contains two duties of the insurer: a duty to indemnify and a duty to defend. The duty to defend is broader than the duty to indemnify, with the insurer obligated to provide a defense, regardless of the validity of the allegations. Defense expenses do not reduce the limits under the policy. This "defense in addition to policy limits" feature can be important when the defense process becomes expensive.

Insurers can decide unilaterally whether to settle or defend a claim or suit. If they believe it is expedient to settle a claim even though an insured feels strongly about his or her innocence, the insurer can do so without the insured's consent.

As alluded to above, the limits of liability in the U.S. are usually expressed using a separate or split limit for bodily injury liability and property damage liability. This approach corresponds to how state minimum limits are expressed in financial responsibility laws and compulsory liability laws.

Exclusions

An understanding of insurance coverage is never complete until you examine the exclusions. The automobile liability exclusions section is divided into those relating to an insured and dealing with the vehicle.

First, there are exclusions relating to an insured. Liability coverage is not provided for any insured for:

• Intentional acts that cause bodily injury or property damage.
• Property damage to property owned by an insured. Such damage is normally covered in homeowner’s insurance or some other form of property insurance.
• Property in the "care, custody or control" of an insured.
• Bodily injury to an employee of an insured during the course of employment (except domestic employees).
• When using a vehicle as a public or livery conveyance. This exclusion does not apply to a "share-the-expense" car pool.
• Injury or damage arising from the automobile business (selling, servicing, repairing or parking automobiles).
• Operation of a non-owned vehicle without permission of the owner.

There are also exclusions relating to the vehicle. Specifically, liability exclusions relating to the automobile include the following:

• Vehicles with fewer than four wheels.
• Vehicles designed primarily for use off public roads.
• Vehicles owned by the insured or furnished for the regular use of an insured, but not listed on the policy.
• Vehicles while being used for competitive racing at a racing facility. This applies to practice or actual racing events. This exclusion does not apply to any racing on public streets!

In addition to the limits of liability, the insurer may offer supplementary payment benefits, such as:

• Cost of bail bonds (e.g., up to $250 per occurrence).
• Premiums on appeal bonds and bonds to release attachments.
• Court-imposed interest accruing after any judgment has been entered.
• Loss of earnings (e.g., up to $50 a day) when an insured is required to attend a hearing or trial.
• Other reasonable expenses incurred by the insured at the insurer's request.

Medical Payments Coverage

Automobile medical payments coverage pays "reasonable expenses incurred for necessary medical and funeral services because of bodily injury" sustained by an insured in an automobile accident. The definition
of “insured” for this coverage includes the named insured and family members, occupants of an insured vehicle, and any family member struck by a vehicle as a pedestrian.

The purpose of medical payments coverage is to provide a dependable and convenient source of recovery for medical expenses arising from automobile accidents. This coverage responds without regard to fault. The coverage provided to occupants of an insured vehicle also discourages, or at least somewhat reduces the need to resort to lawsuits by occupants against the insured driver.

Medical payments coverage is provided on a “per person” basis. The minimum per person limit tends to be very low, such as $1,000. Individuals with comprehensive medical expense insurance may view this coverage as redundant. One advantage of automobile medical payments coverage, however, is the absence of a deductible or other form of loss sharing. These features are common in medical expense insurance.

**No-fault Coverage**

States with no-fault statutes mandate that insurers include this coverage or offer it as an option to all insureds. This coverage applies to the same eligibility group as medical payments coverage. The named insured, family members and occupants of an insured vehicle are all eligible for no-fault coverage. The particulars of this coverage vary by state, but the core coverages are in the “personal injury protection” (PIP) section of the automobile policy.

The medical expense coverage contained in this section is similar to the medical payments coverage mentioned previously. Therefore, if an insured has PIP coverage, there may be no need to purchase medical payments coverage unless the insured desires medical expense coverage beyond the PIP limits.

The loss of wage benefit is usually limited to a percentage of the injured person’s actual wages, with the benefit capped at a weekly or monthly amount. This benefit often is adequate for lower income workers, but not for higher income workers.

If an injured person is unable to perform certain essential services, such as child care, home maintenance, etc., reimbursement is provided for these essential services. Usually a daily or weekly maximum benefit is specified.

Finally, in case of death, a funeral benefit is provided, up to a certain amount such as $1,500-2,500. Any available PIP limits are paid to the family members of the deceased as a survivorship benefit.

The state no-fault statute defines the minimum PIP limit, and often obligates insurers to offer higher limits. The minimum limit is usually $5,000 per person, with increased per person limits of $10,000, $25,000, $50,000 or even higher.

**Uninsured Motorists Coverage**

Uninsured motorists (UM) coverage indemnifies persons injured in automobile accidents when the negligent parties have no liability insurance protection and are financially incapable of meeting their tort obligations. This coverage, if included in the injured person’s automobile policy, provides a source of recovery for any bodily injury claims that could be made against a negligent party. Such claims could include economic damages (medical expenses, loss of wages, etc.) as well as non-economic damages.

The limits for UM coverage are usually expressed similarly to the bodily injury liability limits, with a per person and per occurrence limit. The basic UM limits are the same as the state minimum bodily injury liability limits. If insureds carry higher bodily injury liability limits, they are normally entitled to increase the UM limit up to the bodily injury liability limit. Increasing the UM limits also provides an expansion of UM coverage to include “underinsured motorists” coverage. This means that, if a negligent driver was insured, yet carried inadequate bodily injury limits, damages in excess of his or her limits could be covered by the injured party’s UM coverage. This feature can be important given the relatively low state minimum limits and the high percentage of drivers who purchase minimum limits.

A few states extend the uninsured motorists coverage to include property damage. Therefore, if an uninsured motorist caused both bodily injuries and property damage in an automobile accident, the injured party can seek both bodily injury and property damage payments from the UM coverage.

**Buying Considerations**

Personal insurance buyers should consider several factors in the purchase of automobile insurance. In the personal automobile insurance market, there is a tendency to purchase the minimum limits required by law. If one does not have much to lose, this may be an appropriate risk financing strategy. However, the potential for serious injury or damage in an automobile accident and the relative cost of higher limits should be considered by everyone.

For example, suppose that a female age 22 in Georgia would pay a six month premium of $558 for the state’s minimum limits for liability and uninsured motorists coverage and a $1,000 per person limit for
medical payments coverage. If she elected higher limits of $250/500/100, her premium would increase only 15 percent. The higher uninsured motorists limits is a greater percentage increase, however, considering the ten fold increase in limits, the marginal cost is attractive. Going from a $1,000 per person to $5,000 per person medical payments coverage costs an additional $14 every six months. (Again, we find significant variations in premiums charged by different insurers.)

Once the desired coverages and limits are determined, the premium is calculated based on driver characteristics, nature of the vehicle, use of the vehicle and a number of discounts.

Several factors relating to the primary driver are inputs to the premium calculation. We discuss three of the factors here.

- **Age and gender.** The frequency of automobile accidents is higher for young drivers. The accident rate for young males is slightly higher than young females. Some insurers have separate rating factors for each age from sixteen to twenty five, while others use age group clusters, such as 16~18, 19~21, and 22~25.
  
  Some states do not permit the explicit use of age or gender as rating factors. Insurers can use the number of years licensed as a proxy for age. For example, insurers are permitted to use licensed less than three years as a rating factor. Of course, this factor would include all recently licensed drivers, regardless of current age.

- **Driving history.** Insurers normally use the most recent three year period as the rating range. Any at-fault accidents and moving traffic violations during that period would result in a premium surcharge. This surcharge remains for three years following the accident or violation.
  
  Driving history may also play a role in the availability of automobile insurance. Some automobile insurers only accept drivers with a "clean" record, that is, no accidents and violations. Other insurers may have rating tiers, with the drivers with clean records being placed in the standard or preferred tier and drivers with accidents and violations relegated to a substandard tier.

- **Credit history.** A new factor now being considered in personal automobile insurance rating is credit history. Credit scores are commonly used in both personal automobile and homeowner's insurance underwriting. Insurers believe that there is a correlation between financial responsibility as measured by the credit score and driving responsibility. Using credit scores in insurance decision-making has been controversial. Insight A4-2 examines this public debate.

**Insight A4-2  Credit Score Debate**

Financial institutions use credit scores in decisions regarding the granting of credit for mortgages, personal loans and credit cards. Recently the insurance industry has adopted credit scores as an input in the risk selection and pricing of personal automobile and homeowner's insurance. The use of credit scores in personal insurance decision-making is based on insurance industry research showing a strong correlation between financial responsibility as measured by the credit score and loss experience in personal automobile and homeowner's insurance.

Some consumer groups have opposed the use of credit scores in personal insurance. They question the correlation between credit and claims results. Even though credit scores do not use demographic factors such as age, gender, ethnicity or wealth, the use of credit scores in personal insurance underwriting may have a disparate impact on any demographic group defined by these factors.

Legislation has been passed in some states that ban or restrict the use of credit scores by insurers, as recent as in Massachusetts where insurers are no longer permitted to use credit scores for personal automobile insurance underwriting as from 2008. In most instances, these laws reject the use of credit scores as the sole determinant of acceptance or pricing. These scores are permitted to be used as one of a number of considerations in the underwriting of personal automobile and homeowner's insurance.

ChoicePoint, an Atlanta-based company that collects claims data from a number of insurers, now compiles insurance scores that combine credit information with claims history. This composite score may address some consumer concerns as to the relevancy of using credit information in the insurance underwriting process.
The vehicle itself can influence the premium. Most insurers surcharge sports cars and high performance vehicles. The combination of a young person driving such a vehicle may be unacceptable for some insurers.

Some vehicles have features that may influence the premium. For example, some vehicles may be able to withstand a low speed impact with little or no damage. Crash tests have shown that some vehicles are better than others in protecting occupants. In addition, some vehicles are less costly to repair. These features are captured in the premium calculation, and should be considered in the purchase of an automobile.

Two factors are relevant to use of vehicle: the territory of operation and the extent of use.

- **Territory.** Driving density makes a difference in automobile accident frequency and severity. Vehicles primarily operated in congested urban areas are more likely to be involved in an accident. Conversely, vehicles operated in rural areas are less prone to being in an accident.

- **Extent of use.** The extent of use is usually measured by asking the insured how the automobile is most commonly used. A "pleasure use" carries the lowest rate. Drivers that use their automobiles to commute to school or work are asked the one-way distance traveled. Longer commutes are charged a higher rate. A "business use" automobile is one that is used by the insured in the course of his or her business. Some insurers use estimated annual mileage as a measure of the extent of use.

Numerous discounts are available to fine tune the automobile premium calculation. For example, a driver training credit for youthful operators has existed for years. This credit is usually 5-15 percent. Some insurers have added a credit for completing a defensive driving course. Some states encourage defensive driver education by providing incentives for creating such courses and requiring insurers to provide premium discounts for course completion.

Good student discounts apply to youthful drivers who are performing well in school, usually defined as maintaining a B average or higher. This discount is in the 5-15 percent range. Most insurers offer a 5-10 percent discount for insures with two or more vehicles insured with the same insurer. This discount reflects the economies of scale realized by insuring multiple vehicles on one policy. Besides, most insurers grant a discount if both the automobile and homeowner's insurance is with the same insurer. This discount reflects the economies of scope realized when an insurer provides several policies to the same insured.

It pays to comparison shop for personal automobile insurance. Even though the terms and conditions of automobile policies do not vary from insurer to insurer, the price often does. Table A4-1 shows the variability in automobile premiums by comparing comparable coverage from selected insurers in New York.

**Homeowner’s Insurance**

The homeowner’s insurance policy contains two major sections of coverage:

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**Table A4-1 Comparison of Personal Automobile Insurance Premium**

The insured: an unmarried male age 20 (with driver education) for pleasure use only.

Minimum coverage: $25,000/$50,000/$10,000 for liability, and $25,000/$50,000 for uninsured motorist coverage.

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Minimum Liability Coverage</th>
<th>Bodily Injury Liability to $100,000/$300,000</th>
<th>Property Damage Liability to $50,000</th>
<th>No-fault Coverage to $100,000</th>
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<td>$1,037</td>
<td>$33</td>
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</tbody>
</table>

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The Section I property coverages were examined in Chapter A3. This chapter discusses the Section II coverages which consist of personal liability and medical payments to others coverage.

**Personal Liability**

The Section II insuring agreement provides personal liability coverage for insureds for their legal liability for any bodily injury or property damage arising from an occurrence covered by the policy. Insureds include the named insured, spouse, relatives residing with the insured, and others under the age of 21 and in the care of an insured. For example, an 18-year-old foreign exchange student temporarily residing in the insured's household is an insured.

Two insurer duties are expressed in this insuring agreement. First, to pay on behalf of the insured all sums that insured is legally liable to pay, up to the policy limits. Second, the insurer owes a duty to defend the insured, even if the suit is groundless, false, or fraudulent. This duty to defend is broader than the duty to indemnify. For example, the insurer will defend all allegations, even those that are false or fraudulent. The insurer has the right to settle any claim or suit without the consent of the insured. Finally, defense costs do not diminish the limits available to the insured for damages. The basic limit is $100,000 per occurrence. Higher limits are available at an additional premium.

**Medical Payments to Others**

This Section II coverage is similar to the medical payments coverage in personal automobile insurance with one exception: the named insured and regular residents of the household are not covered. The term “to others” was added to this coverage title to make it clear that this coverage applies only to people outside the insured household. The intent of this coverage is to provide a source of recovery for medical payments even with no legal obligation to pay. The insured may feel a moral obligation to offer payment. Such a coverage can also be a deterrent to filing a legal action if the injured party believes the insured is responsible for the damages. The medical payments limit is expressed on a per person basis. The basic limit is $1,000 per person, with higher limits available.

Suppose a relative was visiting your home for a few days. The relative twisted an ankle while walking down the stairs. She had to be taken to an emergency medical center, with the treatment resulting in $700 of medical expenses. This is a classic example of where the medical payments to others coverage applies. A limited amount of coverage is available, no deductible applies, and fault is not an issue.

**Section II Exclusions**

Exclusions apply to both liability and medical payments coverages. In addition, exclusions apply separately to each of these Section II coverages.

Exclusions applying to both liability and medical payments coverages commonly include the following:

- **Intentional injury.** Any bodily injury or property damage expected or intended by an insured is excluded.

- **Business and rental property.** A business is defined in the policy to include any trade, profession or occupation. This exclusion has taken on new significance with the advent of telecommuting. Some insurers have modified this exclusion to provide liability and medical payments coverage for this exposure.

- **Motor vehicle.** This exclusion makes it clear that automobile liability is not intended to be insured in homeowner's insurance. Exceptions are provided, however, for the use of motorized vehicles used to service the residence (riding lawn mower) and motorized golf carts not licensed for use on public roads.

- **Watercraft.** This exclusion pertains to the ownership or use of large boats, an exposure that should be separately insured. An exception is provided for any liability arising from small boats, such as powerboats with small engines or sailboats of less than 26 feet in length.
• **Aircraft.** This significant liability exposure is clearly beyond the intent of homeowner’s insurance.

• **War and warlike operations.** Losses resulting from war – declared or not – or warlike operation are not covered.

• **Communicable diseases.** Liability created by the transmission of communicable diseases is excluded. Actual covered losses on policies without this exclusion led to the addition of this exclusion.

• **Sexual molestation, corporal punishment and abuse.** Claims filed under the homeowner’s policy led to adding this as an excluded exposure. (President Clinton’s legal defense in the Paula Jones case was provided by his homeowner’s insurance policy!)

• **Illegal drugs.** Yet another exclusion that is a sign of the times. This exclusion applies to any liability arising from the use, sale, manufacturing, delivery, transfer, or possession of a controlled substance.

Exclusions pertaining to the personal liability coverage include the following:

• **Contractual liability.** This exclusion applies when an insured agrees to assume the legal liability of another party through a contract. This exclusion does not apply, however, to loss assessment obligations to a homeowners association or a written lease or rental agreement.

• **Property owned by the insured.** For example, an insured could not make a liability claim for property damages caused by another resident of the insured household.

• **Property in the care of an insured.** This is the care, custody or control exclusion commonly found in liability insurance.

• **Workers’ compensation.** In the few states in which homeowners are obligated to provide workers compensation benefits to domestic employees, this exclusion is removed.

A few exclusions pertain only to the medical payment to others coverage also exist and can be summarized as follows:

• **Injury to a resident employee off an insured location.** Medical payments for resident employees apply only while they are on the residence premises.

• **Workers’ compensation.** This treatment is similar to the personal liability exclusion.

• **Persons regularly residing at the insured residence.** This exclusion clarifies the intent of medical payments coverage "to others."

**Additional Coverages**

Section II provides some additional coverages that are worthy of mention. These coverages are in addition to the limits of liability stated in the policy.

• **Claims expenses.** This provision is similar to the description of supplemental coverage in personal automobile insurance, including premiums on bonds, reasonable expenses incurred by the insured at the insurer’s request, and any interest due on judgments.

• **First aid expenses.** Insureds are reimbursed for any first aid expenses incurred in an attempt to mitigate the loss. An ambulance charge is an example of a covered first aid expense.

• **Damage to property of others.** The insurer will pay up to a certain amount (e.g., $1,000 per occurrence) for property damage of others caused by an insured. No legal liability is necessary for this coverage to apply. Examples of this include a child accidentally breaking a neighbor’s window or a borrowed lawn mower being damaged while in your possession.
• **Loss assessment.** Homeowners associations are empowered to assess members of the homeowners association for specified losses that are to be shared by the members. Examples could be uninsured property damage to common areas and the legal liability of the association's directors.

**Section II Endorsements**

Several Section II endorsements can be added that expand the scope of the personal liability coverage.

- **Business pursuits.** A business pursuits endorsement provides liability coverage for insureds who conduct certain business activities on the residence premises. Generally, this applies to routine office work. Some insurers offer endorsements for specific business activities, such as home day care and tutoring by teachers. A few insurers have designed a new version of homeowner’s insurance that automatically includes the at home business pursuits exposure.

- **Personal injury.** The Section II personal liability coverage is limited to bodily injury or property damage allegations. **Personal injury** involves other personal loss occasioned by acts such as libel, slander, defamation of character, and invasion of privacy; for example, a person making libelous statements about a neighbor in a homeowners’ association newsletter. Personal injury claims are not covered under Section II, but coverage can be added by the personal injury liability endorsement.

- **Other structures rented to others.** This endorsement adds liability coverage for other structures owned by the insured and rented to others.

- **Watercraft and recreational vehicles.** Personal liability coverage can be added for larger watercraft liability not covered in the basic homeowner’s policy. Recreational vehicle liability can also be added. In most instances, however, these exposures are covered by separate policies that include both the property and liability coverage for these types of vehicles.

**Personal Umbrella Liability Insurance**

Individuals select personal liability limits that are appropriate to their perceived needs for financial protection. Increased limits are available in both personal automobile insurance and homeowner’s insurance. However, most insurers are unwilling to provide limits beyond $500,000 or so.

![Figure A4-3  Personal Umbrella Liability Insurance Structure (not drawn to scale)](image-url)
This limitation led to the development of personal umbrella liability insurance under which coverage is provided in excess of the automobile or homeowner’s policy. Umbrella policies require that insureds maintain a minimum underlying limit for both automobile insurance and homeowner’s insurance, usually $300,000 or $500,000 per occurrence. If a liability loss exceeds the underlying policy limits, the personal umbrella liability policy pays up to its limits of liability. Personal umbrella policies are provided in $1 million units, with total limits usually ranging from $1 million to $5 million.

The term umbrella is used because the policy is usually broader than the sum of the coverages provided by the underlying policies. The insured may incur a liability loss not covered by either the automobile or homeowner’s policy, yet the insured is covered by the personal umbrella. Such a loss is covered subject to a self insured retention (SIR) that operates like a deductible. Figure A4-3 depicts the typical structure of a personal umbrella liability policy along with the required underlying automobile and homeowner’s liability coverage.

A couple of examples will illustrate the operation of the policy. Assume the required underlying liability limit is $500,000 for both automobile and homeowner’s coverage. The personal umbrella limit is $2 million. If an insured is obligated to pay $1,200,000 in an automobile accident, the automobile policy pays its $500,000 limit and the personal umbrella pays the additional $700,000.

For a second example, assume that you borrow a large power boat to use at the lake. This size boat is excluded by the homeowner’s personal liability coverage. You cause an accident resulting in $600,000 in damages. The personal umbrella policy covers non-owned boat liability, subject to a $1,000 SIR. You would pay the $1,000, and the personal umbrella liability policy would pay the remaining $599,000.

Not everyone is a candidate for a personal umbrella liability policy. Such liability protection will not appear on the radar screen of college students. As one begins to accumulate wealth, however, the situation changes! Now that wealth needs to be protected, the personal umbrella liability policy is an efficient means to deal with this loss potential. A $1 million personal umbrella limit can be purchased for $200-250 per year.

When purchasing a personal umbrella liability policy, it is critical that the underlying automobile and homeowner’s policies satisfy the minimum liability limits requirements of the umbrella. If this is not the case, the gap between the actual limits and the minimum required limits is treated as a self insured retention. This should be avoided.

**DISCUSSION QUESTIONS**

1. Discuss the economic objectives of tort liability rules.

2. Can a particular act be both a crime and a tort? Explain.

3. Discuss the common law defenses that may be available to a defendant in an automobile accident.

4. Rank from most to least significant the sources of liability for most individuals.

5. If you were sued in an automobile accident, compare the losses you may encounter from:
   a. Settlements or judgments
   b. Legal expenses
   c. Damage to your reputation

6. Discuss the consumer trade-offs with no-fault insurance.

7. Compare the medical payments coverage in:
   a. Personal automobile insurance
   b. Homeowner’s insurance

8. Who should purchase a personal umbrella liability policy?
Chapter A5

Loss of Health

TYPES OF HEALTH RISKS FACED BY INDIVIDUALS

The possibility of losing our good health because of injury or illness is one of the most important and frightening risks that we face. Not only does poor health affect our lifestyles – preventing us from engaging in many activities that we enjoy – and sometimes shorten our lives (which is also tough on our lifestyles!), but also it can be financially devastating to us and our families.

This chapter explores the health risk from the perspective of the individual and family. After introducing the major types of health risk, we structure the discussion of each type around the risk management process. Although we touch on some of the public policy problems associated with healthcare financing, we treat this matter as a societal risk issue, exploring it in later chapters.

Individuals face three broad categories of potential economic losses associated with the health risk. First, we can incur medical expenses when we are injured or sick. Medical expenses result from charges levied for healthcare services rendered by physicians, nurses, and other healthcare professionals, from the cost of drugs, and from the cost of hospitalization and other institutional care.

Second, we may incur expenses to provide long term care if mental or physical illness, injury, or old-age frailty prevents us from engaging in the activities of daily living. Activities of daily living include such acts as eating, bathing, dressing ourselves, and other essential activities.

Figure A5-1 Effect of Total Disability on Income and Expenses

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9 This chapter draws in part from Kenneth Black, Jr. and Harold D. Skipper, Jr., Life and Health Insurance (13th ed.; Englewood Cliffs, NJ: Prentice Hall, Inc. 2000), chaps. 7, 18, 19, and 22.
Third, poor health or incapacity not only can lead to additional expenses, but also can be so debilitating as to prevent employment – which means a reduction or even elimination of income. The financial consequences of a disability can be substantial. Indeed, in some ways, disability can be even more financially debilitating on the family than death. With disability, not only does the income of the wage earner typically cease – as with death – but he or she continues to incur expenses. Figure A5-1 illustrates this important risk management concept. It shows income falling as expenses – medical and otherwise – are rising. Rising healthcare expenses combined with declining income creates a gap that must be filled.

**MEDICAL EXPENSES**

All individuals are exposed to the possibility of incurring medical expenses, with their potential severity and frequency increasing with advancing age. Additionally, across all demographic groups, demand has increased for high quality healthcare, including state-of-the-art treatment. Rapid advances in sophisticated, expensive diagnostic and therapeutic technology continue to fuel growth in medical expenditures. Indeed, approximately one in every seven dollars of the entire annual output of the U.S. is spent on healthcare – more than any other nation. Prospects are for this proportion to grow, especially with an aging population.

**Health Risk Assessment**

As explored below in detail, a problem with assessing our exposure to medical expenses is that often we are poorly informed about our own health condition. Individual health assessment usually requires specialized medical expertise, which is secured through physical examinations and tests. Even if we believe our current health to be perfect, it might not be. Moreover, even if an expert medical opinion suggests that our health is perfect, the likelihood of an accident or future illness (and attendant high medical expenses) cannot be ruled out.

The healthcare environment is complex. Numerous market imperfections can lead to poor healthcare assessment, control, and financing decisions. An understanding of the economics of healthcare can help us make better individual and family risk management decisions and make better business and societal decisions as well.

In Chapter 9, we compared the real-world healthcare market with its perfectly competitive ideal by exploring market imperfections. The comparison was multifold. We examined the issue of information asymmetries (e.g., lemons problems) that exist between buyers and sellers in the healthcare market. We analyzed the issues of moral hazard, supplier-induced demand and market power (e.g., barriers to entry) in the market. We also investigated the potential influence of cultural beliefs, growth of medical technology, and medical malpractice on the market. These issues and problems apply to both individuals (particularly employees) and businesses (particularly employers).

Whether healthcare is perceived as a right or a privilege is an important factor shaping healthcare in the country. Many people believe that access to medical care is a universal right rather than a privilege for those who can afford care. For those who consider healthcare as a right, everyone, in theory, is entitled to all services equally at no cost to the individual. Medical care is costly, however, and some tradeoffs are inevitable due to resource constraints; that is, rationing must occur in some form. Thus, certain sub-groups of citizens may be uninsured (such as the poor or the unemployed), waiting times to receive care may be long (rationing through one’s price of time), or access to state-of-the-art technology or certain procedures may be restricted, especially for persons of advanced age.

**Risk Control in Medical Expenses**

After health risks have been assessed, individuals and families should try to minimize their adverse effects. The most effective means of doing so is to maintain a healthy lifestyle through commonly known methods such as eating a balanced diet, engaging in regular exercise, not using tobacco, and having regular physical exams. We can minimize the likelihood of injury by driving safely and wearing seatbelts, avoiding high-risk activities, securing safe jobs, and exercising prudence at work and in leisure.

If we, nonetheless, injure ourselves or get sick, we often can minimize its severity if we seek medical attention early. Women historically have been more conscientious about doing this than have men.

In general, however, most of us will incur significant health and related costs at some points in our lives, in spite of our best efforts. Given this fact and given that the costs of healthcare continue to escalate, some means of healthcare financing is a virtual necessity in contemporary society for all but perhaps the very wealthy.
Insight A5-1  Medical Savings and Spending Accounts

In 1996, a law was enacted in the United States, permitting individuals (as well as small employers) to fund medical expenses in a new way. The law authorized the creation of up to 750,000 medical savings accounts (MSAs) which are savings accounts whose funds are limited to covering an individual’s or family’s medical expenses. Tax deductible contributions may be made to the account, the interest on which is tax deferred. Withdrawals to cover medical expenses are not taxable income. High-deductible medical expense insurance is required to be purchased.

Similar results can be obtained through one’s employer, by establishment of tax-preferred medical savings accounts. Amounts contributed to these accounts are tax deductible to the employee and the payment of medical expenses from the account does not cause taxable income.

Insight A5-2  Distinctions between Individual and Group Coverages

Individual health insurance is an arrangement in which coverage is provided to a specific individual under a policy issued to that individual (and sometimes covering family members). Except in mass marketing approaches and in certain state-sponsored or mandated plans, insureds typically must furnish evidence of insurability for a policy to be issued. Companies maintain separate records for each policy and conduct all transactions, including premium collection, on a direct basis with each insured.

Group health insurance refers to arrangements in which coverage is provided for numerous individuals through a single plan. The group sponsor may be an employer, an association, a labor union, a trust, or any other legitimate entity. Members of larger groups obtain coverage without having to furnish evidence of insurability. Because of reduced marketing and administrative costs, group health coverage generally costs less than individual plans with comparable coverages.

Source: Black and Skipper (2000), Life and Health Insurance, p. 135.

FINANCING MEDICAL CARE

As with the financing of other losses, health losses can be financed through retention or by transfer. All of us meet some health-related costs through our monthly cash flow and sometimes from savings. Indeed, as with other risk financing, it often is wise to retain high-frequency/low-severity health exposures. Moreover, through the creation of medical spending and savings accounts, individuals can provide tax-preferred self-funding of medical expense, as discussed in Insight A5-1. For most people, however, the health risk exposure falls within the potentially catastrophic range of the risk spectrum and, therefore, some means of risk transfer will prove smart. We cover the common transfer mechanisms and their typical benefits below.

Health-related financing in the U.S. is available from five principal sources: (1) managed care organizations, (2) Blue Cross and Blue Shield plans, (3) commercial insurers, (4) self-funded group plans, and (5) government. Coverage through the first three media may be on a group or individual basis, as explained in Insight A5-2. Self-funded group plans and government provide group coverage exclusively.

Managed Care Organizations

Pressures mounted to control the escalating costs of medical care experienced by employers during the 1980s and 1990s. One of the most important responses was the rapid growth of managed care organizations. In Chapter 9, we defined managed care as a coordinated medical treatment approach emphasizing healthcare risk and cost controls. Similarly, a managed care organization is any arrangement under which both the financing and delivery of medical care is linked for a target population, with those delivering the care usually sharing in the risks associated with financing.

Today, more than two-thirds of the U.S. population is enrolled in some form of managed care, usually through employer-provided healthcare plans. In Chapter 9, we discussed two types of managed care organizations: health maintenance organizations (HMOs) and preferred provider organizations (PPOs). In this section, we add a description of two other traditional healthcare financing arrangements we find in the United States, namely, Blue Cross and Blue Shield companies and commercial insurers.
Blue Cross and Blue Shield Plans

The Blue Cross and Blue Shield Association is a national federation of 39 independent, community-based and locally operated Blue Cross and Blue Shield companies, mostly as nonprofit hospital and medical service corporations. They operate in all 50 U.S. states, the District of Columbia, and Puerto Rico. These plans have tended to dominate the market for basic medical coverage in many geographic areas because of lower premiums from a favored tax status with the majority of states, and because of close ties to the hospitals and organized medical societies in the localities that they serve. The trend today, however, is toward elimination of tax preferences for the Blues with many of them having converted to for-profit stock insurers.

Blue Cross plans are nonprofit hospital expense prepayment plans. Most plans were organized by hospitals in the area served by the plan. The plans provide for hospital care on a service-type basis, by which Blue Cross enters into contracts separately with member hospitals for certain types and amounts of hospital services and then reimburses the hospital directly for those covered services rendered to plan subscribers. The subscriber, the Blues’ term for the insured, is billed only for those services not covered by Blue Cross.

The majority of Blue Cross plans are coordinated with Blue Shield plans. Blue Shield plans are nonprofit organizations offering prepayment coverage for surgical and medical services. The typical Blue Shield plan provides benefits similar to those provided under the surgical and physicians’ expense benefit provisions of commercial health insurance policies (see below). Blue Cross/Blue Shield medical coverage is available on both a group and an individual basis. The plans resemble those of commercial insurers.

The Blues collectively make up the largest healthcare entity in the country. They comprise one of the largest providers of managed healthcare in the U.S. As of 2008, more than 66 million persons were covered under the PPOs of the Blue Cross and Blue Shield plans, 16 million in HMOs, 5 million in POS products, and 13 million in traditional, fee-for-service programs.

Commercial Insurers

Numerous U.S. commercial insurers write some form of health insurance. These stock and mutual corporations are organized as life, property/casualty or health insurance companies and provide coverage not only for medical expenses but also for long term care and disability.

Insurers sell both basic and comprehensive medical expense insurance on both a group and individual basis. Most commercial insurance is issued on a group basis and provides comprehensive coverage for a wide range of medical expenses including inpatient and outpatient hospital services, physician and diagnostic services, specialty services such as physical therapy and radiology, and prescription drugs. Deductibles of between $250 and $1,000 (and higher in the individual market) are common. Covered expenses often are subject also to an 80 percent coinsurance (participation) provision in each calendar year. Total out-of-pocket payments typically are capped at between $1,200 and $6,000 annually. Both life insurers and the Blues offer major medical expense insurance.

A variety of modified comprehensive designs provide some first-dollar coverage. In some plans, certain types of expenses, such as hospital expenses, are not subject to a deductible, and no coinsurance is applied on the initial hospital expenses, such as the first $2,000 or $5,000. Surgeons’ fees may be treated similarly, subject to a usual and customary fee limitation. It is possible to waive or modify the deductible and coinsurance features for other services such as physicians’ hospital visits and diagnostic tests.

In addition to hospital-surgical and major medical insurance policies, insurers offer a number of special individual policies. These include (1) Medicare supplemental insurance, (2) hospital confinement indemnity, and (3) specified-disease policies.

As the name indicates, Medicare supplemental policies provide coverage that supplements the benefits provided by governmental medical insurance plans (see below). Health insurers and the Blues generally offer two basic types of policies: (1) the Medicare Wraparound policy and (2) the Comprehensive Medicare Supplement policy.

- The Medicare Wraparound policy provides benefits that cover the deductibles and coinsurance amounts that individuals must pay personally under Medicare. Such policies may continue to pay benefits for hospital and nursing home confinement after Medicare benefits are exhausted. Coverage, however, is limited through the application of maximum benefit limits.

- The Comprehensive Medicare Supplement policy is similar to the Medicare Wraparound policy except that it generally has significantly higher maximum benefit limits or is unlimited with respect to the duration of confinement in a hospital or skilled nursing facility. They also may provide benefits for a variety of healthcare expenses not covered under Medicare.
In contrast with basic hospital expense insurance that is provided on a reimbursement basis, hospital confinement indemnity coverage pays a fixed sum for each day of hospital confinement up to one year or more. This type of insurance should be considered only supplemental to underlying broad health coverage.

So-called dread disease coverage refers to individual insurance that pays a variety of benefits up to substantial maximums solely for the treatment of diseases named in the policy, most typically cancer and heart disease. Benefits usually are paid as scheduled amounts of indemnity for designated events, such as hospital confinement, or for specific medical procedures, such as chemotherapy. Because the insurance pays only for medical expenses associated with a single devastating disease, this coverage is quite limited and should be used only as a supplement to broad health insurance coverage.

Most individual medical expense policies are guaranteed renewable meaning that the insured has the contractual right to continue the policy by the timely payment of premiums to a specified age, such as 65, and that premiums can be revised only for the entire class of insureds. The individual’s claims experience cannot be considered in renewing the policy or in revising the premiums. Future premiums are not guaranteed on either individual or group medical coverages but are subject to change from year-to-year by the insurer.

Recently a few insurers have explicitly taken an insured’s claim experience into consideration in determining renewal premiums. These insurers’ argue that those in good health should not have to subsidize those in poorer health and this practice, effectively, minimizes the chances that those in good health will seek new coverage. Regulators are concerned that such pricing practices effectively change the bargain entered into originally by the insured and insurer, cause some insureds to face massive premium increases, and can ultimately drive those having the most claims from the market, resulting in more uninsureds.

**Self-Funded Group Plans**

Coverage for medical expenses, long term care, and disability income are made available through self-funded group plans offered by employers, labor unions, professional and trade associations, and other affinity groups. Employer groups are the most common. These plans may require enrolled members to share in the funding through dues or contributions. The benefits provided are similar to those of commercial group insurance contracts but usually are the amount desired and affordable by a specific group of individuals.

For employers with 20 or more employees, the Consolidated Omnibus Budget Reconciliation Acts of 1985, 1986 and 1990 (COBRA) require that group health plans allow employees and certain beneficiaries to elect to have their current health coverage extended, at group rates, for up to 36 months following a qualifying event that results in the loss of coverage. This law applies to self-insured and fully insured employer-provided plans. Insight A5-3 offers some key facts about COBRA coverage.

### Insight A5-3  Medical Expense Coverage If You Lose Your Job

Under U.S. law, any employee, spouse, or dependent child who loses employer-provided medical expense coverage because of a qualifying event is entitled to elect continued coverage without providing evidence of insurability. The following are qualifying events if loss of coverage by an employee or the employee's spouse or dependent child results:

- The death of the covered employee.
- The termination of the employee except for gross misconduct.
- A reduction of the employee's hours so that the employee or dependent is ineligible for coverage.
- The divorce or legal separation of the covered employee and his or her spouse.
- The employee's eligibility for Medicare (for spouses and children).
- A child's ceasing to be an eligible dependent under the plan.

The cost of the continued coverage may be passed on to the qualifying beneficiary but cannot exceed 102 percent of the total cost to the plan for the period of coverage for a similarly situated active employee to whom a qualifying event has not occurred. The continuation of coverage is not automatic but must be elected by a qualifying beneficiary.

*Source: Black and Skipper (2000), Life and Health Insurance, pp. 138-139.*
Government

The WHO reports that 44.7 percent of U.S. healthcare expenditures in 2004, including funding for research projects and construction of medical facilities, was by governments at all levels.\(^{10}\) Federal government expenditures are more than twice those of state and local governments.

The most important federal program is Medicare, which provides medical expense reimbursement primarily for the elderly. The largest joint federal/state program is Medicaid, which provides medical expense and other (see below) health coverage for the indigent. States also provide or require medical expense coverage through workers’ compensation programs. We briefly discuss each of these programs. The funding and rationale for these programs were discussed in Chapter 9.

Medicare

Medicare is a federal health insurance program and consists of several parts:

- Part A Hospital Insurance
- Part B Medical Insurance
- Part C Medicare Advantage Plan
- Part D Prescription Drug Plan

Part A and Part B belong to the Original Medicare Plan. Part A is the Hospital Insurance Plan and essentially all persons aged 65 or over and all persons receiving Social Security disability benefits for at least two years are covered for the plan benefits. The basic hospital-plan benefits include the following:

- Inpatient hospital services for up to 90 days in each benefit period, plus a provision for a lifetime reserve of 60 days. The patient must meet several co-payments, including deductibles and coinsurance. Hospital services generally include all those ordinarily furnished by a hospital to its inpatients, with some limitations.
- Post-hospital skilled nursing care after a patient is transferred from a hospital (after at least a three-day stay) for up to 100 days in a benefit period. After the first 20 days, patients incur daily co-payments.
- Home health services on an unlimited-visit basis, without a requirement of prior hospitalization. The recipient must be in the care of a physician and under a plan established by a physician. These services include intermittent nursing care, therapy, and the part-time services of a home health aide. The patient generally must be homebound.
- Hospice care for terminally ill patients.

A **benefit period** begins when the individual enters a hospital and ends when he or she has not been an inpatient of a hospital or skilled nursing facility for 60 consecutive days. The deductible amounts for inpatient hospital care are increased to keep pace with increases in hospital costs. The daily coinsurance amounts for long hospital stays and skilled nursing care benefits are also adjusted annually.

Part B is medical insurance generally on an outpatient basis. This coverage provides a supplementary program for surgical and physician’s care and certain other benefits, for persons aged 65 or over and all persons receiving Social Security disability benefits for at least two years. This part is optional and purchase of it can be deferred if the beneficiary or his or her spouse continues to work actively on or after the eligible age. Once purchased, the eligible person must pay a monthly premium for this coverage. The premiums cover approximately 25 percent of the cost for Part B benefits. The remainder comes from general tax revenues. Premiums changes yearly.

Subject to an annual deductible and a 20 percent coinsurance of covered expenses, the supplementary plan provides the following benefits:

- Physicians’ and surgeons’ services including but not limited to: x-rays, laboratory and diagnostic tests, influenza and pneumonia vaccinations, blood transfusions, renal dialysis, outpatient hospital procedures, limited ambulance services, immunosuppressive drugs, chemotherapy, and other outpatient treatments administered in a doctor's office.
- Home health services, available without limit (identical to those covered under hospital insurance) and not subject to cost-sharing provisions.

• Psychiatric care, subject to a special limitation on outside-the-hospital treatment of mental, psychoneurotic, and personality disorders. Payment for such treatment during any calendar year is limited, in effect, to 50 percent of the expenses.

The program pays only for so-called "reasonable charges" for services. Thus, not all physician charges may be reimbursable under the program. If any of the services outlined above are covered under the basic hospital plan, they are excluded from coverage under the supplementary plan.

Part C is relatively new and made available with the passage of the Balanced Budget Act of 1997. The act gives Medicare beneficiaries the option to receive their Medicare benefits through private health insurance plans in lieu of through the Original Medicare Plan. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 named it the Medicare Advantage Plan.

This plan replaces the deductible and coinsurance payment under the Original Medicare Plan with a fixed dollar co-payment (e.g., $100). When the plan includes Part D benefits, it is known as the Medicare Advantage Prescription Drug Plan (MAPD).

Part D is a prescription drug plan and became effective on January 1, 2006. Participants of Part A or B are also eligible for Part D. This plan is not standardized in that participating private insurers can set their own coverage scopes, such as classes of drugs covered or tiers of coverages, subject to some coverage exclusions set by the Center for Medicare and Medicaid Services of the U.S. Department of Health and Human Services.

Medicaid

Medicaid is a jointly funded federal/state healthcare program for those low-income and needy people who have passed the economic needs test. The program was created in 1965 through Title XIX of the Social Security Act. The payments made for medical care are made on a traditional reimbursement basis or, increasingly, through managed care arrangements. It is also known as Medi-Cal in California, MassHealth in Massachusetts, and TennCare in Tennessee.

Medicaid covers approximately 36 million individuals including children, the aged, the blind and the disabled as well as people who are eligible to receive federally assisted income maintenance payments. Eligibility and benefits are determined and administered by each state, subject to broad federal guidelines.

Strictly speaking, Medicaid and its variants are not an insurance program but a welfare program. Participants and beneficiaries of insurance plans, including those available in the private sector, require premium payments by participants. In typical welfare programs, including Medicaid, beneficiaries only need to pass the eligibility test, i.e., an economic needs test.

Workers’ Compensation

As discussed earlier in the book, workers’ compensation laws require employers to provide benefits to employees for losses resulting from work-related accidents or diseases. Based on the principle of liability without fault, the employer is held absolutely liable for the occupational injuries or diseases suffered by workers, regardless of who was at fault. Employees are not required to sue their employers to collect benefits. The full cost of providing workers’ compensation benefits ordinarily is borne by the employer.

The key criterion for coverage under workers’ compensation laws is that accidental occupational injuries or death must arise out of covered employment. Self-inflicted injuries and accidents resulting from an employee’s intoxication or willful disregard of safety rules usually are excluded. Illnesses resulting from occupational diseases are covered in all states, with some states covering only specified diseases. Besides covering work-related medical expenses, these laws also provide disability income coverage, death benefits, and rehabilitation benefits. Benefit levels vary significantly from state to state.

Employers can comply with the law by purchasing a workers’ compensation policy, by self-insuring, or by obtaining insurance from a monopolistic or competitive state fund. Most employers purchase workers’ compensation policies from private insurance companies.

LONG TERM CARE EXPENSES

The second major type of health risk faced by individuals and families stems from the possibility of becoming unable fully to care for oneself. Most often, such incapacity is associated with the aging process. We briefly discussed long term care (LTC) insurance policies in Chapter 21. In this chapter, we focus our discussion on the management perspective of LTC risk. The reader may also refer to the discussion of demographic transformation and societal risk management in Chapter 7.
Risk Assessment in Long Term Care

Estimates for the U.S. suggest that some 40 percent of elderly will require nursing home care at some point in their lives. By age 75, the odds of requiring some long term care increases to 60 percent. Because of these facts, our focus in this section will be on the elderly, but note that middle-age and younger persons incur similar exposures through accidents or medical conditions. The long term care (LTC) need is not confined to the elderly.

Historically, any needed care was provided by family members. Even today, families remain the primary source of care for the infirmed. Numerous factors, however, have converged both to decrease the ability of families to provide care and to increase the demand for such care. For example, The American Association of Retired Persons (AARP) reports in its 2006 study that the following indicators, in addition to age, can affect the need for LTC; that is, in the United States in 2005.11

- Nearly four out of 10 individuals age 75+ lived alone.
- In 2005, slightly more than one-half of people age 65+ lived at or below 300 percent of the poverty line – an income level that places them at risk of needing public assistance.
- Less than one out of five persons age 65+ had a bachelor’s degree or higher.
- Although almost 80 percent of individuals age 65+ owned their own homes, about one out of four spent at least 30 percent of their income on housing. Among renters, more than half did.
- One out of eight persons age 65+ did not have a vehicle in their household.

The continuing demise of the extended family, the rise in single-parent households, a growing proportion of adult women (who historically have been the primary family caregivers, working outside the home, thus making them less available to render care), a more mobile society (meaning that children are less likely to live near elderly parents) can also affect the demand for long term care. Of course, we may consider modern medicine’s ability to prolong life, which does not always translate into physical independence, as well as growing networks of desirable services available to those in need of LTC as additional factors.

A MetLife survey of use of private nursing homes shows that the average cost of a year’s stay in a nursing home in the U.S. was $75,190 (or $206 per day) for a private room. See Table A5-1 for the range of the cost in selected U.S. cities. (The survey also reports that the average hourly rate for home health aide was $19 in 2005.) The average confinement was 892 days, and about 14 percent of the residents were using the service for five years or longer. Of course, individual costs can be much higher than the averages suggest, meaning an even more rapid dissipation of personal assets and possibly even impoverishment. Of even greater importance to many persons is the concern about possible loss of dignity and a loss of control that accompanies old-age wealth depletion.

Table A5-1  Daily Nursing Home Costs for a Private Room in 2006 (Selected Cities)

<table>
<thead>
<tr>
<th>City</th>
<th>High</th>
<th>Low</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham</td>
<td>$162</td>
<td>$115</td>
<td>$141</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$360</td>
<td>$125</td>
<td>$199</td>
</tr>
<tr>
<td>San Francisco</td>
<td>$450</td>
<td>$190</td>
<td>$311</td>
</tr>
<tr>
<td>Denver</td>
<td>$220</td>
<td>$132</td>
<td>$180</td>
</tr>
<tr>
<td>Miami</td>
<td>$240</td>
<td>$165</td>
<td>$203</td>
</tr>
<tr>
<td>Atlanta</td>
<td>$209</td>
<td>$130</td>
<td>$169</td>
</tr>
<tr>
<td>Las Vegas</td>
<td>$285</td>
<td>$170</td>
<td>$198</td>
</tr>
<tr>
<td>New York City</td>
<td>$621</td>
<td>$220</td>
<td>$346</td>
</tr>
<tr>
<td>Spokane (Washington)</td>
<td>$251</td>
<td>$220</td>
<td>$219</td>
</tr>
<tr>
<td>National Average</td>
<td>--</td>
<td>--</td>
<td>$206</td>
</tr>
</tbody>
</table>

* a The city data is based on specific ZIP codes in the area.


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At the same time, we cannot ignore the fact that many elderly people depend on Social Security benefits – some even on Medicaid benefits – to cover their long term care expenses. The cost at public nursing homes tends to be lower than in private nursing homes, other things being equal. The AARP study (2006) shows that the daily Medicaid reimbursement in nursing facility was $118 in 2002 and that the daily Medicare reimbursement was $270 in 2004.

Risk Control in Long Term Care

As with medical expenses, the best LTC expense control techniques involve engaging in healthy lifestyles. Additionally, we can often delay or eliminate the need for assistance by designing or buying homes that are “elder friendly.” Some items that allow a more independent lifestyle for mildly incapacitated individuals include:

- having the living area on one floor only;
- if stairs are necessary, ensuring that they have low rises with double banisters;
- using large knobs on cabinets and drawers and avoiding latches;
- using handles not turns on faucets; and
- ensuring that bath rooms are properly equipped, possibly using high toilets, handles in showers and tubs, and walk-in showers rather than tubs.

Numerous other means of ensuring friendlier home and travel environments exist. The American Association of Retired Persons [www.aarp.org] offers numerous publications and links to other sites that offer advice for more independent lifestyles.

Where care is necessary, it often can be provided through an assisted living facility most efficiently and with minimal loss of dignity. Assisted living is the fastest growing type of senior housing in the U.S., with an estimated 15 to 20 percent annual growth rate. Since today’s older persons are, on average, more financially secure than their predecessors, many have the means to demand and pay for assisted living.

An assisted living facility is generally defined as a residential setting that provides or coordinates personal care services, 24-hour supervision, scheduled and unscheduled assistance, social activities, and some health-related services. Assisted living provides a homelike atmosphere and is designed to accommodate residents’ changing care needs and preferences.

The philosophy of assisted living emphasizes personal dignity, autonomy, independence, and privacy. The objective of assisted living is to maintain or enhance the capabilities of frail older persons and persons with disabilities so that they can remain as independent as possible in a homelike environment. The combination of residential housing and personal care services, tailored to meet individual needs, helps promote the ability of residents to “age in place.”

Assisted living is not, as a rule, designed for persons requiring 24-hour skilled nursing care or ongoing medical monitoring. The typical assisted living resident is an 83-year-old female needing assistance with three activities of daily living (ADLs). Residents have a variety of personal care needs and/or cognitive limitations. Table A5-2 shows such needs.

Long Term Care Financing

Long term care needs can be met through the care rendered by family members or friends, typically at no charge, or by professionals and trained assistants for a fee. If the care requires paid professionals or assistants, which increasingly is the situation, their charges must be financed either through (1) the individual’s or family’s existing wealth or future income (retention) or (2) external sources (via risk transfer/financing).

More than one-third of LTC financing is from the individual’s or family’s resources. Of course, the economic value of services rendered at no charge by family and friends likely dwarfs the one-third figure. External sources of LTC financing in the U.S. include: (1) Blue Cross organizations, (2) commercial insurers, (3) self-funded group plans, and (4) government. Coverage through the first two media may be on a group or individual basis, with the individual policy approach predominating. Self-funded plans and government provide group coverage exclusively.

The American Council of Life Insurers (2005) reports that LTC expenditures in the U.S. for the elderly were estimated to be more than $100 billion in 2005 and that the expenditures will rise to $284 billion in 2025. Figure A5-2 shows how total U.S. nursing home expenditures were financed in 2002. Note the small share covered by private insurance.

Thus, public funding for LTC meets 60 percent of nursing home expenditures. Medicaid, the joint federal-state healthcare program, is the primary governmental funding source. We should note that recipients of Medicaid benefits must have depleted most of their assets and meet a strict income and asset tests before they qualify. In the past, families facing LTC expenses for an aged parent would arrange the transfer of the parent’s assets either to the children or a trust in order to voluntarily impoverish the parent who would then be eligible for Medicaid. Recent changes in federal law makes this approach to manipulating the program much less feasible, with any transfers occurring within the preceding five years being considered as still owned by the individual.

Medicare is, in principle, not designed to cover most LTC expenses. Rather, it covers medical expenses of the aged, with LTC benefits payable only for some home care and for medically necessary care in a skilled nursing facility and only when the facility-based care follows a period of hospitalization for the same condition. Additionally, this coverage is limited to 100 days, of which only 20 are covered in full.

Private LTC insurance pays for services when the insured is unable to perform certain activities of daily living without assistance, such as bathing, eating, dressing, toileting, and transferring from bed to chair. These policies also pay benefits when the insured requires supervision due to a cognitive impairment such as Alzheimer’s disease.

Originally, LTC insurance covered only skilled care in a nursing home following a period of hospitalization. Today, coverage extends to an array of services that promote independent living, including personal care, assisted living, care management, support for family caregivers, home modifications, homemaker services, and hospice care, in addition to institutional care.
Coverage varies based on how benefits are paid. Some policies pay a fixed daily benefit, usually for nursing home confinement. Others pay a fixed daily benefit regardless of whether the insured incurs LTC expenses, provided eligibility requirements are met. Still others reimburse for incurred expenses, up to the policy daily maximum, such as $100 for nursing home care and $50 for home care. Most reimbursement policies merge benefit dollars into a total “pot,” permitting insureds greater flexibility in spending limits.

Insureds under individually issued policies select from an array of options, including the length of the benefit period, which ranges from one to five years or to lifetime. They also must select the maximum daily benefit (e.g., $40 to $250 per day) and length of the elimination (waiting) period before benefits become payable (e.g., 0 to 365 days). Of course, the greater the benefit the higher the premium, and the longer the elimination period the lower the premium, other things being the same! Other options are also available, such as inflation protection and funding for different levels of care.

LTC policies issued to individuals are offered mainly on a guaranteed renewable basis, the same as with most medical expense insurance policies. Thus, premiums may not be increased unless they are changed for the entire class of policyholders. Of course, applications for individual LTC insurance are carefully underwritten by the insurer. Long term care benefits are also sometimes available through life insurance policies, as discussed in the next chapter.

LTC coverage offered through employers and other group mechanisms may be self-funded or insured. Typically, group coverage is offered on a voluntary basis, with the employee or association member paying the full premium. For large groups, the coverage will be issued on a guaranteed issue basis, with no individual underwriting. For smaller groups and for non-employment based groups, such as associations, coverage usually is individually underwritten.

DISABILITY AND LOSS OF INCOME

The third major health risk exposure stems from the possibility that injury or illness will prevent us from working and, thereby, cause a reduction in our income. Disability can seriously affect a worker’s and a family’s lifestyle and savings plans.

For example, the U.S. Department of Housing and Urban Development estimates that 46 percent of foreclosures on conventional mortgages are caused by disability, versus only 2 percent caused by death. This exposure seems to evoke a somewhat different reaction from individuals than that which is observed with other personal risks.

Disability Risk Assessment

Most individuals seem quite concerned about the possibility of incurring high medical bills and, therefore, diligently seek and maintain some sort of medical expense insurance coverage. Observation would suggest that we might be only somewhat less concerned about the possibility of our deaths causing financial hardship for those dependent on us (see Chapter 9), as large proportions of the wage-earning population purchase life insurance.

Much smaller proportions of the wage-earning population, however, have disability income coverage. Indeed, only about one in four U.S. workers has private disability income coverage of any type. It is as if the possibility of losing one’s income because of disability is not great or, if disabled, recovery will be swift and complete.

It is true that the majority of disabilities are short term, lasting less than one month. On the other hand, the probability of a disability lasting three months or longer is quite high for individuals in their wage-earning years. Figure A5-3 shows one set of such probabilities for selected ages. We also show, for comparison, the probabilities of death prior to age 65 based on a common mortality table.

Note that the probabilities of a long term disability, defined as having a duration of at least three months, is more than twice the likelihood of death until age 60, at which point the two events are equally likely (9 percent) before age 65. Additionally, if one is disabled for at least three months, the average duration of disability falls in the five-to-seven-year range.

The need for disability income coverage has increased for the same reasons that the need for LTC coverage has increased. Informal support formerly provided by the family declines with economic development. Also, with high government social insurance expenditures, we are witnessing a shift of responsibility for disability income (and other coverages) from government to the individual. At the same time, advances in medical care and technology have turned many of the greatest “killer” diseases into “disabler” diseases. In effect, many medical advances have substituted disability for what formerly would have been death.
Disability Risk Control

Disability loss prevention and reduction techniques are the same as those discussed earlier for controlling medical and long term care expenses. Sometimes, however, the severity of a disability can be influenced by the individual. Consider Susie who owns a small business whose profits are directly related to her being able to work. If she injures her back but can endure the great back pain and still work, she may do so, particularly if she has little or no disability income coverage and the consequences of not working are that her business fails.

To some limited degree, disability is subjective. As a group, people with inadequate disability income insurance or other sources of disability-related income are less likely to consider themselves disabled than those with adequate coverage. And, if we can receive an income while disabled that is equal to or greater than our wages, we have less incentive to recover. In other words, disability income can give rise to moral hazard.

Financing the Disability Exposure

Being disabled and suffering a major reduction in income can be not only physically but also psychologically debilitating. Unless one has sufficient wealth or enough generous friends and family, disability can be among the greatest threats to one’s lifestyle.

In general, the ability to retain the financial consequences of the disability exposure is directly related to age. Young people typically will have acquired few financial assets that can be drawn upon to support themselves for a potentially long period of disability. With age typically comes greater acquired wealth. By the time we retire, presumably we have accumulated sufficient assets that, coupled with adequate long term care and medical expense coverage, we no longer require external sources of disability income. We could support ourselves. Moreover, as we age, the maximum possible period of disability declines. After all, we have fewer years to live (and be disabled)!

Therefore, the need for external sources of disability income typically declines with age, ultimately disappearing at about our anticipated age of retirement. During the working years, however, most of us require substantial external coverage; in other words, good risk management argues for transferring the exposure.

The three major sources of external finance for the disability exposure are (1) commercial insurers, (2) self-funded group plans, and (3) government. Commercial insurers sell both individual and group disability income insurance policies, with group coverages predominating. Self-funded group and government disability income coverages are available on a group basis only.

Figure A5-3  Probabilities of Disability for 90 Days or Longer and and Probabilities of Death – Prior to Age 65

Source: 1980 CSO Mortality Table and 1985 Commissioners Disability Table.
Commercial Insurers

Disability income insurance policies are designed to provide monthly benefits to replace lost income when the insured is disabled as a result of sickness or injury. Policies sold to individuals typically are issued on a guaranteed renewable or noncancelable basis. The definition of guaranteed renewable mentioned above in connection with LTC policies applies equally to disability income policies. A noncancelable policy is one in which the insurer cannot cancel the policy, refuse to renew it, or unilaterally change the premium charged during the term of the policy.

Three basic components establish the premium and define the payment of benefits under all disability income policies: the elimination period, the benefit amount, and the benefit period. As with LTC policies, the elimination (waiting) period is the time at the onset of disability during which no benefits are paid. Elimination periods range from seven to 365 days, with 3 months being the most common for individually issued policies and seven days being the most common for employer-provided short term disability income coverage. Figure A5-4 shows the effect on one insurer’s premiums of different elimination periods.

The benefit amount is typically stated in terms of a fixed monthly sum. The insurance usually is written on a valued basis, which means that it is presumed to equal the actual monetary loss sustained by the insured. The amount is not ordinarily adjusted as the insured’s earnings change, even if earnings fall substantially.

Individual disability income policies make no distinction between occupational and non-occupational disabilities – paying for each. Also, they usually do not contain a coordination of benefits provision, so that the policy pays the benefit amount irrespective of any other sources of disability income. Employer-sponsored group disability plans promise benefits only for non-occupationally related disabilities. Work-related disabilities are excluded because they ordinarily are covered under the employer’s workers’ compensation plan (see below). Employer-sponsored group plans typically provide for coordination with disability payments collected by the worker from Social Security (see below), but not with payments other sources.

Insurers limit the amount of insurance that they will sell to an insured such that disability income from all likely sources would replace a maximum of between 60 percent and 80 percent of gross wages. Thus, if Social Insurance disability benefits would replace one-quarter of lost wages for someone earning $30,000 per year, an insurer might sell individual coverage to replace an additional 50 percent, bringing the total potential benefit amount to 75 percent.

The benefit period is the longest period for which benefits will be paid. This period usually is the same for disability resulting from sickness and accident, but sometimes it is longer for accidents. Typical benefit periods are two or five years or to age 65. Figure A5-5 shows how one insurer’s premiums vary with different benefit periods.
An important component in both individual and group disability income insurance is the definition of disability. Because of the complexity of defining a disability in specific medical terms, insurers generally define it in terms of sickness or injury limiting one’s ability to work. Two definitions are common – any occupation and own occupation – which we discussed in Chapter 21. We also discussed selected supplemental benefits that insurers commonly add to the main disability insurance policy.

**Self-funded Group Plans**

As with medical expense and LTC coverages, many employers and other affinity groups such as professional associations finance disability benefits internally, without relying on commercial insurers. The benefits might be the same as those provided through an insured plan, but they also can differ, as the employer has greater flexibility in plan design. From the employee’s point of view, the funding source may be irrelevant.

**Government Plans**

Disability income benefits might be available from various government plans. Three important sources are:

- Social Security disability benefits;
- Workers’ compensation; and
- State disability plans.

**Social Security**

The U.S. Social Security program provides benefits for qualified workers who become disabled. To qualify, the worker must meet three tests:

- **Be fully insured**, meaning that he or she has either 40 quarters of coverage (i.e., has paid certain minimum taxes into the system each year) or at least one quarter of coverage for every calendar year elapsing after 1950 or after the year in which the worker attains age 21, if later,
- Has at least 20 quarters of coverage out of the 40 quarters prior to disability, and
- Has been disabled for at least five months.

The disability income benefit amount depends on the worker’s past earnings, with higher earnings resulting in greater benefits. The formula used, however, is heavily weighted in favor of low wage earners, thus resulting in low-income workers receiving a higher proportion of their wages replaced upon disability.
Moreover, the system provides for certain maximum benefit payments, irrespective of past contributions to the system by the worker.

The initial determination of disability is made by state agencies, with the Social Security Administration having the right of review. Disability is defined as the inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. This definition is quite strict in comparison to the definitions used by commercial insurers, meaning that qualifying for benefits requires a truly substantial disability.

Monthly payments also can be made to certain dependent family members of a qualified disabled worker. Rehabilitation is important in the disability program. Thus, a disabled beneficiary who performs services despite severe handicaps can continue to receive benefits for nine months. In addition, the law provides a three-month period of adjustment for beneficiaries who medically recover from their disabilities.

An unmarried child of a deceased, disabled, or retired covered worker who has been disabled since before age 22 is eligible for a cash disability benefit at age 18 or after. The child's disability benefits are payable for as long as the disability continues and are the same as the benefit received by a dependent child of a disabled, retired, or deceased worker. Also, a mother's/father's benefit is payable to the parent who has in his or her care a disabled child receiving benefits. This applies if he or she is a spouse of a disabled, retired, or deceased worker. The rehabilitation features of the disability program also apply to a disabled child.

Workers’ Compensation

As noted in the discussion on medical expense benefits, workers’ compensation laws require employers to provide loss-of-wage benefits to employees for losses resulting from work-related accidents and diseases. Disabled workers are paid for their injuries according to a schedule of benefits established by law. Benefit amounts vary by state and are subject to prescribed state maximums that ensure somewhat limited benefits.

The key criterion for coverage under workers’ compensation laws is that accidental occupational injuries or death must arise out of, and be in the course of, covered employment. Self-inflicted injuries and accidents resulting from an employee’s intoxication or willful disregard of safety rules usually are excluded. Illnesses resulting from occupational diseases are covered in all states. Workers’ compensation laws also provide rehabilitation benefits for disabled workers. Benefit levels vary significantly from state to state.

State Temporary Disability Plans

Finally, five states – California, Hawaii, New Jersey, New York, and Rhode Island – and Puerto Rico have temporary disability benefit plans at the time of writing this chapter. Under these laws, employees can collect disability income benefits regardless of whether their disability begins while they are employed. These benefits are not provided for disabilities covered under workers’ compensation laws. From a benefit standpoint, these laws (except in New York) generally are patterned after the state unemployment insurance law.

Employees contribute to the cost of the plans in all six jurisdictions. In California and Rhode Island, only employees contribute. Except for Rhode Island, which has a monopolistic state fund, an employee may obtain coverage from either a competitive state fund or private insurers. The laws require that private coverage must provide benefits that are at least as liberal as those prescribed under the law. In effect, these plans are compulsory group health plans similar to the voluntary plans in effect in many businesses. Self-insurance generally is permitted.

DISCUSSION QUESTIONS

1. Why might a financial planner contend that the consequences to a family from the breadwinner’s loss of good health could be more devastating financially on the family than his or her death?

2. List and discuss at least five means of health risk control.

3. What economic problems do we individuals face that render the healthcare market less than perfectly competitive? What are some of the consequences to us and our families of these imperfections?

4. Name and list the key distinguishing characteristics of the major sources of healthcare financing. You may refer to relevant discussions in other chapters of the book.
Chapter A6

Loss of Life

INTRODUCTION

We continue the analysis of personal risk management – now including financial planning – by exploring the implications of a topic that can provoke the strongest of psychological reactions and cause the greatest of financial hardships – death. As with the preceding chapters, we examine the subject from the perspective of the risk management process.

The chapter opens, therefore, with assessment. Because of the extreme effects that death can have on families, we explore some of the psychological dimensions of death. We next examine some of the economic aspects of death. A short discussion of risk control follows. The bulk of the chapter is devoted to the options for financing the economic consequences of death.

ASSESSMENT OF THE CONSEQUENCES OF DEATH

Death has both psychological and economic consequences for families and businesses. We introduce both.

Some Psychological Aspects of Death

The way a society and a family view death – whether it is celebrated, dreaded, or somewhere between the two extremes – influences how an individual plans for it. How we deal with death is intertwined with our culture, including religious beliefs and convictions. The sometimes intimate relationship between religious commitment and security reinforces the view that we are not dealing solely with an economic problem. Even when money is involved, it does not always relate exclusively to economics, as Insight 11-5 (the Relationship between Death and Money) suggests.

In many instances, individuals act as if they consider themselves immortal; they seem psychologically unwilling or unable to face their own mortality. Thus, many people avoid speaking about it or planning for its inevitability.

Anxiety

Humans throughout history have exhibited a desire to reduce uncertainty. Uncertainty can cause anxiety. Anxiety may be defined as a collection of fears resulting in unpleasant uneasiness, stress, generalized pessimism, or various risk-averse attitudes. Psychologists consider an individual’s capacity to tolerate and manage anxiety to be a sensitive measure of the healthy integration of his or her personality.

Sociologists, taking a somewhat different approach, consider the individual’s roles (e.g., child, parent, etc.) and related responsibilities throughout life. These responsibilities also can create anxiety.

Anxiety is not an absolute condition. It ranges from extreme neurotic anxiety with an overreaction to a perceived threat to a range of normal anxiety with a reaction that is proportionate to the threat. Normal anxiety can be dealt with constructively at the level of conscious awareness or it can be relieved by various risk management techniques.

Insurance can reduce psychological uncertainty. In this respect, it can be akin in its effect to psychiatry, education, religion and other anxiety-reducing mechanisms. Insurance enhances peace of mind and financial security and can provide a partial relief from anxiety.

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Table A6-1  Rankings and Relative Degrees of Life Change in Selected Life Events

<table>
<thead>
<tr>
<th>Rank</th>
<th>Life Event</th>
<th>LCU Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Death of spouse</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Divorce</td>
<td>73</td>
</tr>
<tr>
<td>4</td>
<td>Death of a close family member</td>
<td>63</td>
</tr>
<tr>
<td>6</td>
<td>Bodily injury or illness</td>
<td>53</td>
</tr>
<tr>
<td>9</td>
<td>Retirement</td>
<td>45</td>
</tr>
<tr>
<td>11</td>
<td>Major change in health of a family member</td>
<td>44</td>
</tr>
<tr>
<td>16</td>
<td>Major change in financial state</td>
<td>38</td>
</tr>
<tr>
<td>17</td>
<td>Death of a close friend</td>
<td>37</td>
</tr>
</tbody>
</table>


Anxiety is often fostered through the financial planning process. In establishing objectives for the family, consideration is given to events that are among life’s most stressful – death, loss of health, retirement, and divorce – and to the anxiety that they create due to transitions into new roles (e.g., widowhood, retirement, etc.).

A scale to measure the relative degrees of life change inherent in various life events has been developed. Table A6-1 lists several life event changes commonly associated with financial planning and shows their relative ranking and their so-called life change unit (LCU) value (with 100 being the greatest value). Life changes induce stress. Note that the death of a spouse is potentially the most stressful of life’s events.

Financial planners and insurance salespersons sometimes use the possibility of these life events and transitions to arouse anxiety within their clients – to motivate them to reflect on the possible financial consequences of the occurrence of the events. The advisor can then paint a picture of freedom from anxiety.

**Emotions**

Emotions are a primary determinant of behavior. Emotions are learned reactions to a set of experiences or perceptions that have been either very favorable or very distressing. Contact with events or thoughts that recall these experiences can stimulate a desire to remove or satisfy the resulting emotions. For example, individuals who experienced severe financial difficulty as children because of the death or incapacity of a parent might be strongly motivated to avoid recurrence of that status for their families through the purchase of insurance.

Emotions can be learned from the experiences of others. Because emotions can be generalized from one set of circumstances to another, many advisors are successful in communicating to a client the emotional consequences of failing to make provision for adverse events, such as death. The purchase of insurance can provide individuals with an overt and constructive outlet for their emotional concerns.

External sources of additional money at the time of death, such as would be provided by individual life insurance, an employer, or the government, undoubtedly help dependents and loved ones from a financial point of view. Dependents and loved ones may infer something about the extent to which a deceased breadwinner cared above his or her family if the deceased person made thoughtful pre-death arrangements, including ensuring adequate funds for the surviving family.

**The Economic Dimension of Death**

In Chapter 2, we introduced consumption theories and how insurance can help maximize lifetime utility. Recall that risk-averse individuals can increase their expected lifetime utility by the purchase of life insurance. With that material as background, we now seek a deeper understanding of how to place an economic value on life.
**The Human Life Value Concept**

**Human life value**, part of the theory of human capital, is a measure of the economic value of an individual to others. The idea is old. A variation of its appears in the Code of Hammurabi, the Bible, the Koran and early Anglo-Saxon law in which compensation was due to the relatives of a person killed by a third party. Today, a value is routinely placed on human life in connection with legal actions seeking recovery for wrongful death cases.

From the standpoint of one’s dependents, an individual’s human life value is the measure of the economic value of benefits that the dependents expect from their breadwinner or supporter. Similarly, from the viewpoint of an organization, the human life value of an employee is the economic value added of his or her services to the firm.

The human life value is subject to loss through (1) premature death, (2) incapacity, (3) retirement, and (4) unemployment. Any event affecting an individual’s earning capacity has a corresponding impact on her or his human life value. Thus, although the focus of this chapter is on loss of life, the same principles apply for loss occasioned by incapacity and through forced unemployment or retirement.

**Assessing the Economic Impact of Death**

We now examine how to measure the financial consequences of loss of life. Of course, loss analysis has two dimensions: frequency and severity.

### Likelihood of Death

For personal planning purposes, loss frequency information (e.g., probabilities of death and incapacity) often has little utility to the individual. The individual will either live or die; suffer a disability or not, etc. Nonetheless, it is instructive to examine probabilities of death as they shape our subjective loss assessments and, therefore, influence our decisions about whether and how to deal with the exposure.

Table A6-2 shows probabilities of death within the next year and prior to age 65 for selected ages. The probability of death within one year for persons during their working years is small. The likelihood of death prior to age 65, however, is not insignificant. Indeed, approximately one in seven persons now at age 30 will die prior to age 65. Also, for many persons, death occurring after age 65 can create significant financial hardships, and death probabilities after age 65 are high. The key to planning for the death contingency is to focus on its financial consequences to the family or business, irrespective of its probability of occurring.

<table>
<thead>
<tr>
<th>Age</th>
<th>Within a Year</th>
<th>Prior to Age 65</th>
<th>Age</th>
<th>Within a Year</th>
<th>Prior to Age 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.0068</td>
<td>0.1582</td>
<td>35</td>
<td>0.0013</td>
<td>0.1390</td>
</tr>
<tr>
<td>5</td>
<td>0.0002</td>
<td>0.1564</td>
<td>40</td>
<td>0.0019</td>
<td>0.1322</td>
</tr>
<tr>
<td>10</td>
<td>0.0001</td>
<td>0.1558</td>
<td>45</td>
<td>0.0030</td>
<td>0.1216</td>
</tr>
<tr>
<td>15</td>
<td>0.0005</td>
<td>0.1549</td>
<td>50</td>
<td>0.0044</td>
<td>0.1053</td>
</tr>
<tr>
<td>20</td>
<td>0.0009</td>
<td>0.1519</td>
<td>55</td>
<td>0.0063</td>
<td>0.0812</td>
</tr>
<tr>
<td>25</td>
<td>0.0010</td>
<td>0.1479</td>
<td>60</td>
<td>0.0095</td>
<td>0.0450</td>
</tr>
<tr>
<td>30</td>
<td>0.0010</td>
<td>0.1438</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### Measuring Loss Severity

The major financial loss faced by most families as a result of death is loss of earning power, although death can also cause the family to incur additional expenses (e.g., funeral expenses and estate taxes). We seek to place an economic value on the financial loss suffered by the family (or business); that is, to provide a measure of potential loss severity.

It is necessary, first, to gather relevant quantitative and qualitative information to permit a sound identification of financial loss exposures arising from the individual’s death (and loss of health). This involves
identification and valuation of the individual's assets and liabilities and establishment of family objectives. For death planning purposes, this usually means that the family determines the income levels needed after the death of either spouse.

A commonly stated objective is to allow the family to maintain its current living standard on an individual's death. This may translate into a survivor income need of at least 60 percent of the pre-death family income. The amount typically is less than the current total family income, as the deceased spouse's self-maintenance expenses end.

One should also establish objectives regarding such things as:

- liabilities to be paid off on death or incapacity;
- amounts necessary to cover funeral and other final expenses;
- amounts to establish a family emergency fund;
- amounts to establish a fund to finance children's education; and
- bequests to friends and relatives and to charitable or other organizations.

Next, it is necessary to determine whether (1) existing death-related payments (such as existing life insurance, employer-provided death benefits, etc.), plus (2) the assets that could be liquidated on death plus (3) any future income from wages or Social Security death benefits (see later in this chapter) would be sufficient to allow the family to meet its objectives. If existing and likely future resources are insufficient, objectives must be lowered or arrangements made to ensure greater resources.

In analyzing the need and resources, it is necessary to derive present values for all future cash flows. Thus, if a two-income family decided that the death of the father would create a $3,000 per month shortfall for the family, one would calculate the present value of an income stream of $36,000 per year for whatever number of years the income likely would be needed (e.g., while the children were still in school). Of course, such calculations require estimates for future investment returns and inflation rates, thus making for a less-than-precise exercise.

When the need for income is for the whole of life, the problem can be approached in one of two ways. First, the future desired lifetime income could be funded assuming that the survivor purchases a life annuity. In this instance, the question becomes "what amount of money must I ensure that my heirs have such that they can purchase a life annuity that pays the needed income." The second way of funding lifetime income is to assume a maximum age beyond which the income recipient is unlikely to live and to provide for the complete liquidation of principal and interest between the present and that age. Some analysts suggest age 90 as the terminal age.

When resources are netted against the needs, the result is a measure to the family of net financial consequences of death, based on its objectives. Ideally, a range of figures would be developed based on various interest, inflation, and other relevant assumptions to provide an idea as to the sensitivity of the results to the assumptions.

LOSS CONTROL APPLIED TO THE DEATH EXPOSURE -------------------------------

Of course, we cannot control whether we die, but we sometimes can greatly influence its timing. The loss control discussion in the preceding chapter on the health exposure applies equally to death – after all, death is the ultimate loss of health! (It is also nature’s way of telling us to slow down!)

Numerous factors influence the timing of our demise. Some factors are beyond our control. Thus, our age and sex are fairly immutable, and aspects of our genetic makeup can increase our susceptibility to various nasty afflictions. We males simply must persist in the knowledge that, were we females, we would live an average of eight years longer. And we older folks must persist in the knowledge that our likelihood of death is greater than that of similar younger people. Of course, these findings are averages and particular individuals will fare better or worse.

We can control certain factors associated with increasing longevity. We discuss below some important factors.

**Tobacco Usage**

Tobacco usage in any form, whether smoking, chewing, or dipping, increases the likelihood of death. Cigarette smoking, in particular, is said to be the single most important factor contributing to premature death in the U.S. So important is this factor that the overall life expectancy advantage enjoyed by females relative to males is completely eliminated for smoking females in comparison to nonsmoking males.
Dozens of studies since the 1950s have established that those who smoke cigarettes experience mortality roughly twice that of nonsmokers. The main causes of death among smokers are heart disease, lung and bronchus cancer, and chronic bronchitis and emphysema. Mortality rates rise proportionately with the number of cigarettes smoked; more than one pack a day provides mortality rates from lung cancer of three times that of nonsmokers. Two or more packs a day earns the “winner” lung cancer mortality risks of 15 to 25 times greater than that of nonsmokers! The good news is that cancer death rates decline with the number of years off cigarettes. An estimated 85 percent of lung cancer deaths could be avoided if individuals never smoked, with substantial reductions possible for those quitting. You may also wish to read the discussion about information asymmetry between tobacco producers and smokers in Chapter 4.

**Build**

Studies of the effect of build (i.e., weight, height, and its distribution) on mortality have established a strong correlation between the two. Thus, in a study of mortality of the general U.S. population, the American Cancer Society found that males and females weighing 20 percent above average experienced extra mortality of 21 and 23 percent respectively. Women weighing 50 percent above average exactly doubled their risk of dying; overweight men did even better at killing themselves prematurely, experiencing mortality of 210 percent of average. The good news is that the extra mortality risks associated with being overweight seems largely to disappear, other things being the same, for those who lose the extra weight and keep it off.

Other research suggests that being slightly below average weight (e.g., 10 percent), results in somewhat below average mortality. The Metropolitan Life Insurance Company has been producing height and weight tables for many years. Their web site contains their latest tables (www.metlife.com).

**Blood Pressure**

Medical scientists and insurers have known for many years of the association between elevated blood pressure and extra mortality. There is no satisfactory definition of normal blood pressure because both mortality and morbidity increase linearly with increasing blood pressure. Thus, expected mortality as a percent of average mortality for females with various systolic (the higher) readings are as follows:\(^{14}\)

<table>
<thead>
<tr>
<th>Systolic Reading</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 108</td>
<td>83%</td>
</tr>
<tr>
<td>128 ~ 137</td>
<td>107%</td>
</tr>
<tr>
<td>158 ~ 167</td>
<td>169%</td>
</tr>
<tr>
<td>178 ~ 187</td>
<td>278%</td>
</tr>
</tbody>
</table>

The experience for men is also linear. The relationship between the diastolic readings and mortality for both men and women is also linear. Women with hypertension, however, experience mortality about 30-35 percent less than men of equivalent blood pressure levels.

A common arbitrary definition of normal blood pressure is a systolic reading below 140 or a diastolic reading below 90. Higher blood pressure is more common in men than women, in older than in younger people, and in blacks than in whites. Blood pressure can be lowered by various means, the most common being medication. For those whose previously elevated blood pressure is lowered to normal and maintained, the extra mortality risk is virtually eliminated.

**Substance Abuse**

Substance abuse greatly increases one’s likelihood of dying. The increase is due to the direct pharmacological effects of the drug, complications in administration, and drug-associated high-risk behavior. Expected mortality rates as a percentage of average mortality rates for regular users of various drugs are as follows:\(^{15}\)


The bad news is that it has proven devilishly difficult for most compulsive drug abusers to withdraw from use. The good news is that, if they can withdraw, the additional likelihood of dying is totally eliminated within a few years of cessation (often, seven years or less).

Drug abuse is not limited to illegal drugs, of course. Somewhat more than 10 percent of the U.S. population abuses alcohol, with the great majority being relatively young (ages 18-29) and male. Moderate alcohol consumption (one to two drinks per day) appears to be harmless; indeed, studies have suggested beneficial cardiovascular effects. However, an increased likelihood of dying is associated with high consumption. Thus, even if you have no symptoms of dependence, the likelihood of death is about three times that of an average person if you regularly down four or five drinks a day. The multiple moves to six for alcoholics.

The good news, again, is that cessation of alcohol abuse leads to elimination of the extra mortality risk over time (e.g., three to five years).

**Other Factors**

Numerous other factors influence the likelihood of our dying. Some of the important controllable ones include the following:

- **Exercise**: Men who engage in active sports regularly experience mortality rates of one-half those of men who only occasionally exercise. This can add almost nine years to life expectancy. The moral: exercise.

- **Stress**: People considered Type “A” personality (i.e., aggressive, competitive, impatient) are six times more likely to have coronary artery disease over those not considered type A. The moral: calm down, relax.

- **Marriage**: The age-adjusted death rates for married men and women are less than one-half the rates for those who have never married. However, the rates for widowed men and women are higher than their never-married counterparts. The moral: get married, but don’t let your spouse die!

- **Vitamin C**: Research suggests that daily intakes of 300 mg. of vitamin C can add 5½ years to life expectancy. The moral: take vitamin C supplements.

**FINANCING THE DEATH EXPOSURE**

As with other loss exposures, we can retain or transfer the financial consequences of death. Of course, individuals who do not plan are effectively retaining the exposure – or more accurately, their families are retaining it. In considering alternatives, the planning time frame can be separated into short-run and long-run periods. The viable short-run alternatives usually are exceedingly limited, with more emerging with time.

Viable short-run alternatives are those that can be adopted now and in the near future to fill any financial gap that would be created by death. In the short run, there is insufficient time to increase savings or investments meaningfully, and we usually have little control over the death benefit amounts provided through our employer and under government plans. The purchase of individually issued life insurance usually is the only realistic short- to medium-term solution.

The longer term affords more alternatives. Sufficient time exists to implement an enhanced savings/investment program to fill any financial void; in other words, retention becomes feasible. The three major sources of financing are: (1) individual life insurance, (2) employers, and (3) government.

**LIFE INSURANCE**

As discussed in Chapter 21, one of the most common means of providing funding for the economic consequences of premature death is through the purchase of individually issued life insurance policies from
a commercial life insurer. From that chapter, you find that all life insurance policies are of one of two generic types: (1) term life insurance or (2) cash value life insurance, such as whole life insurance, variable life insurance, and universal life insurance.

The Life Insurance Policy as a Package of Options

An interesting way of examining a life insurance policy is to consider it as a package of options. The promise to pay a benefit on the insured’s death is equivalent to a put option exercisable at death. Stated in (perhaps insensitive) finance terms, the beneficiary holds an option to sell an asset (the insured’s economic value) to the insurer at an agreed upon strike price (the policy face amount) if the asset value falls to zero (death). As such, any policy provision that makes the option more secure has value to the option holder (policyholder or beneficiary). Conversely, any provision that tends to make the option less secure lessens the value. Policy provisions that accord policyholders additional flexibility are themselves embedded options with value.

Provisions that Make Payment More Secure

Three standard policy provisions add value to the contract by making the payment of the death proceeds more secure.

- The **entire contract clause** stipulates that the policy itself and the application, if a copy is attached to the policy, constitute the entire contract between the insurer and the policyholder. This clause sets boundaries on the scope of information relevant to policy interpretation and possible legal challenge.

- The **incontestable clause** provides that the validity of the insurance contract may not be contested because of applicant concealment or misrepresentation after the policy has been in effect for a certain period of time, usually two years. Thus, the insurer may not challenge the validity of the contract after two years. This presumes, of course, that the policy remains in force by the timely payment of premiums.

- Under the **misstatement of age clause**, the policy’s death benefit will be adjusted if the insured’s age is found to have been misstated. The revised insurance amount will be that which would have been purchased by the premium had the correct age been known at policy issuance.

Provisions that Make Payment Less Secure

Some policy provisions could be invoked by the insurer to deny or delay payment of policy proceeds, and thus detract from the value of the policy.

Almost all states permit insurers to include a **suicide clause** in their policies which allows them to avoid paying death claims on insureds who commit suicide within the first one or two policy years. Death by suicide after the two-year period is covered. The clause is deemed to be a reasonable public policy compromise between denying claims because of suicide throughout the policy’s entire duration and covering them from policy inception – which could lead to adverse selection against the insurer.

Insurers also include a **delay clause** which allows them to delay payment of policy benefits, including cash values, for up to six months if the insurer believes it appropriate to do so. This clause finds its counterpart in the banking industry. As a practical matter, however, neither insurers nor banks are keen to exercise this right for it calls the institution’s financial solidity into question.

Provisions That Afford Additional Options

Most provisions within life insurance policies accord policyholders additional flexibility. We summarize below several commonly used options.

- Under the **grace period provision**, the insurer must accept premium payments for an additional period (usually 30 days) after their due dates. During this grace period, any death claim would be honored. This provision is intended to protect policyholders against unintentional policy lapse.

- The **reinstatement clause** offers the policyholder of a lapsed policy the option of having the policy reinstated if insurability conditions are met and past-due premiums paid. Insurers ordinarily underwrite reinstatement requests less stringently than new applications for insurance. Without this option, the individual policyholder may be forced to purchase a new policy, incurring acquisition expenses again.
The usual **beneficiary clause** permits the policyowner to have policy death proceeds paid to whomever he or she wishes. This clause provides the *raison d’être* for owning most life insurance policies.

The policyholder and the beneficiary have several **settlement options** as to how cash values and death proceeds are paid. These so-called settlement options involve the insurer retaining a portion or all of any proceeds and paying them to the beneficiary or other payee as directed by the policyholder or beneficiary. The settlement options frequently include the following:

- **Interest only option** paying only interest over a set time period on the retained proceeds;
- **Fixed period option** paying both interest and principal over a set period of time which can vary from a few months to 10 or more years;
- **Fixed amount option** paying a fixed amount each month or other frequency until the principal and interest are exhausted.; and
- **Lifetime option** converting the retained amount into an life annuity with payments guaranteed over the payee’s lifetime and, at the discretion of the payee, with various refund features if the payee dies soon after payments have commenced.

Most life insurance contracts allow the policyholder to assign the policy as collateral for loans or other purposes. By exercising the **assignment provision**, the policyholder need not purchase separate insurance to cover bank or other loan obligations.

Most life insurance policies also allow the policyholder to name a new owner of the contract. This **change-of-ownership provision** right can be particularly valuable when corporate or family situations change and it is desirable (or required – as is sometimes the situation with bankruptcies and divorce settlements) to have ownership reside with another individual or entity. Often, this provision is combined with the assignment provision.

There may be a **participation provision** (also known as **policy value provision**). Nonparticipating cash value policies ordinarily contain a provision that stipulates that the insurer’s board of directors will annually determine the premium and/or the cash value interest crediting rate, the COI charges, and policy loadings. Some policies link the interest crediting rate or other policy elements to some external index. In all cases, changes cannot impinge on the guarantees in the policy.

Participating policies include a parallel provision stipulating that the policyholder will participate in the insurer’s favorable investment, mortality and other experience. Thus, to the extent that surplus funds have been accumulated, these funds may be distributed to policyholders. Subject to a few states’ laws limiting surplus accumulation by life insurers, the insurer’s board of directors ordinarily has sole discretion to determine how much of these funds will be distributed and how they are to be apportioned among the policies.

The options available to policyholders for receiving dividends provide another potentially important source of flexibility. The five most common dividend options are:

- **Cash** (pay in cash);
- **Reduce premium payment** (credit against the premium due or pay policy loan interest due);
- **Paid-up additional insurance** (use the dividend to purchase chunks of single-premium whole life);
- **Accumulate at interest** (retain the dividend and credit interest on the accumulated fund); and
- **One-year term insurance** (use the dividend to purchase one-year term insurance).

Although not a required provision, insurers routinely provide a **premium payment option** such that the policyholder may pay premiums annually, semi-annually, quarterly or monthly. Policyholders can pay premiums by check, electronic funds transfer, or automatic deduction from their checking or money market accounts.

Cash value policies may offer surrender and withdrawal options. Owners of those policies who wish to surrender their insurance policies may select from among three common options as to how to do so. These are referred to as **nonforfeiture options** because state laws prohibit insurers from causing policyholders to forfeit the equity built in the terminated policies. We describe commonly used nonforfeiture options below.

- **Cash** value policies may be surrendered and the insurer pays the net cash surrender value in cash to the policyowner. Of course, when this option is elected, the protection ceases and the company has no further obligations under the policy. The net surrender value is the cash value shown in the policy, decreased by any policy loans outstanding, and increased by the cash value of any paid-up additions, any dividends accumulated with interest, and any prepaid premiums. Policyholders also typically can make partial withdrawals or partial surrenders. A **partial withdrawal**, common in universal life policies, is the removal of a portion of a policy’s cash value, with the cash value and death benefit reduced by the amount of the withdrawal. Thus, a $3,000 withdrawal from a $100,000
universal life insurance policy with a $10,000 cash value reduces the cash value to $7,000 and the face amount to $97,000.

Traditional whole life policies often permit partial surrenders. A partial surrender is the removal of a portion of a policy's cash value, with the cash value reduced by the amount of the surrender and the face amount and premium reduced in the proportion that the partial surrender amount bears to the total cash value. Thus, a $3,000 partial surrender under a $100,000 whole life policy with a $10,000 cash value and a $2,000 annual premium reduces the cash value by $3,000, the face amount by $30,000 ($100,000 x ($3,000 ÷ $10,000)), and the premium by $600 ($2,000 x ($3,000 ÷ $10,000)).

- The reduced paid-up insurance nonforfeiture option permits the policyholder to use the cash value as a net single premium to purchase a reduced amount of paid-up insurance of the same type as the original policy.
- The extended term insurance (ETI) nonforfeiture option gives the policyholder the right to use the net surrender value to purchase paid-up term insurance for the full face amount of the policy. The length of the ETI period is determined by applying the net surrender value as a single premium, to provide level term insurance for whatever duration the funds will carry the policy.

Finally, all cash-value life insurance policies sold in the U.S. must contain a policy loan provision under which the insurer must grant a loan to the policyholder in an amount not to exceed the policy cash value. The loan is, of course, fully secured by the cash value. The policyholder is not “borrowing the cash value” as is sometimes mistakenly said. Without a loan option, policyholders in need of policy funds would have to surrender a portion or all of their policies.

No one need approve the loan, and it is confidential. The loan interest rate is either a fixed rate (typically 8 percent) or varies with an external bond index. The amount available for a loan is predicated on the policy's cash value, including the cash value of any paid-up additions. There is no fixed repayment schedule, although, of course, ultimately it will be repaid. Any outstanding balance will be deducted from the cash value if the policy is surrendered or from the face amount if the policy matures as a death claim.

Buying Life Insurance

Making a wise life insurance purchase decision involves answering these four questions:

- Do I need any life insurance?
- If I do need life insurance, how much do I need?
- If I do need life insurance, what kind is best suited for me?
- If I do need life insurance, from whom should I buy it?

Do I Need Life Insurance?

The starting point of the analysis is an inquiry whether any life insurance is needed. One commonly accepted approach for answering the question is asking the following two-part question: will my death create financial hardship on anyone and do I want to alleviate that hardship. Thus, if your death would not create financial hardship on anyone – as often is the situation with children and single adults – then there may be no need for life insurance.

The argument is sometimes made that you should buy life insurance while you are young and insurable because the premium rates increase with age and you might become uninsurable in the future. Ordinarily, this contention should not be persuasive. True, premium rates for cash value life insurance are generally lower for younger insureds, but you would be paying this lower premium for a longer time. As explained above, all cash value policies are priced using internal yearly renewable term (YRT) charges that increase with age, so this argument is bogus.

It is true that some proportion of the population will become uninsurable. The likelihood of a young person becoming uninsurable over the next few years, however, is small. Moreover, the amount of life insurance that most adults will need at that point in the future when family or other obligations cry out for protection often proves so large that any insurance purchased on the adult’s life when he or she was a child would seem insignificant.

The answer to the second part of the above two-part question is purely personal. Its inclusion is tacit acknowledgment of the psychological dimensions of the life insurance purchase decision. Even if your death would create a financial hardship on your family, if you don’t care what happens to them, you are not likely to buy life insurance.
How Much Do I Need?

If the answer to the preceding question is “no,” the entire analysis ceases. Assuming a “yes” answer, the next question is: How much life insurance is needed to fill the financial void created by death? The procedure for deriving this amount was discussed at the beginning of this chapter.

Numerous web sites offer life insurance needs calculators. Additionally, one of the important value-added services of agents and financial planners is assistance in quantifying the need. In many instances, only the need for the current year is estimated. An attempt should be made to estimate likely future needs. This likely pattern can influence the type of insurance policy purchased. For example, if the future need is to pay off a mortgage loan, the amount of life insurance needed likely will decline with age – suggesting a decreasing term policy.

What Kind of Insurance Is Best Suited for Me?

After deciding on the amount of insurance, the individual should decide the type of insurance policy to buy. Four factors drive this decision:

- The amount of money you are willing to spend on life insurance premiums;
- The likely pattern and duration of your future life insurance needs;
- Your financial discipline and risk tolerance; and
- Other saving options.

The amount of money available to pay life insurance premiums turns on the individual’s income and wealth. For many people, especially young families, this amount will be small and the needed life insurance large. Other financial needs demand greater attention. In such situations, the type of insurance to be purchased is dictated by the combination of limited budget and great need. The family buys term insurance.

The likely pattern and duration of future life insurance needs will influence the decision as to specific type of term policy. In this situation, financial discipline requires only that premium payments be met. The individual’s risk tolerance influences decisions about the amount of insurance to buy (as discussed above) and the extent to which future premiums are guaranteed. Low-risk individuals will shy away from policies with great future premium uncertainty and perhaps from YRT policies in general because they do not want to face steadily increasing premiums.

Higher-risk individuals might opt for greater future premium uncertainty in hopes of securing a better long-term value. Remember, the stronger the guarantees within insurance policies, the more the insurer will charge, other things being the same.

If money available to pay premiums allows the purchase of some form of higher-premium cash value insurance, the decision about type of insurance to buy can be more complex. If the likely future need is not too long, say less than 10 years, the purchase of term life insurance usually proves most economical. The heavy front-end loads contained in most cash value policies substantially penalize their performance over the first 10 or so policy years.

If the likely future need is longer, say 15 years or more, cash value insurance usually is worthy of consideration. Over longer time periods, loads will have been amortized and the benefits of favorable income taxation of cash value policies (see below) can make them effective savings instruments. In such situations, the decision whether to purchase cash value insurance or term insurance should turn on the individual’s discipline and risk tolerance and other saving options.

Many financial planners recommend the purchase of term insurance, in accordance with the “buy term and invest the difference (BTID)” approach mentioned earlier. The hope is that the return on external savings will be greater than that from internal policy savings. Many agents, however, have long noted that cash value products carry an aura of semi-compulsion. Many individuals who will not routinely save money any other way will, nonetheless, pay policy premiums, thus saving through their life insurance. Individuals whose saving habits fit this description might find cash value life insurance to be a helpful way to save.

The existence of other savings options can influence the decision whether to save via cash value insurance. The interest credited to policy cash values is excluded from the policyholder’s current taxable income. If the policy is kept until the insured dies, such interest escapes income taxation altogether. If all other tax-favored means of accumulating savings (see Chapter 24) have been exhausted or would not be utilized, the earnings on external savings in a BTID arrangement likely will be subject to income taxes. In such a situation, a fair evaluation requires adjustment downward of the expected yield on the external savings to account for the taxes due. Thus, if the individual expects an 8 percent taxable return on external savings and is in the 35 percent marginal income tax bracket, the after-tax yield is 5.20 percent \( [(0.08) \times (1.0 - 0.35)] \).
The cash value policy’s yield can be considered as being an after-tax return. Thus, in this example, if the policy’s expected implicit yield is greater than 5.12 percent, the cash value policy would be superior to the BTID arrangement. Were other tax-favored savings alternatives available and used, both sets of yields are more comparable. If these other savings also involved a tax deduction for contributions – as with 401(k) plans and IRAs – the BTID approach is even more attractive from a yield point of view.

The preceding discussion presumes that the cash value policy is being compared with external savings of comparable riskiness. Of course, they should be comparable if the comparison is to be fair. Thus, for example, it makes little sense to compare a traditional cash value policy with a common stock mutual fund. Such mutual funds carry much higher risks and, therefore, much higher expected returns.

Traditional cash value policies can be thought of as a combination of yearly term insurance and a relatively conservative, fixed-dollar savings account. The savings component is conservative because the investments backing the insurer’s reserves for such policies must be invested in accordance with the relatively conservative requirements of state insurance law. Such policies, therefore, should be viewed as conservative investments, best suited for those wanting relatively low levels of risk. In a BTID arrangement, therefore, they should be compared with equally conservative external savings, such as certificates of deposit or corporate bonds.

Variable policies, in contrast, can involve great investment variability, depending on the separate account chosen to back cash values. Such policies, therefore, should be viewed as correspondingly riskier investments, best suited for those wanting higher levels of risk. In a BTID arrangement, therefore, they should be compared with mutual funds and other such investments.

The issue of what type of insurance to purchase cannot always be divorced from the next issue – from whom to buy. This is particularly true if consideration is being made to the purchase of cash value insurance.

From Whom Should I Buy the Insurance?

We have now decided that some insurance is needed as well as the amount and the most suitable type. The next decision is from whom to buy the insurance. This decision has three components: (1) the quality of the advisor; (2) the quality of the insurer; and (3) the quality of the product.

The Advisor

Although some insurance purchasers do not need the services of an insurance agent or other advisor, most probably do. Use of an advisor should help rectify the information imbalance that exists for purchasers. Many individuals offer this advice – some for a fee and most for a commission.

For most individuals, an insurance agent is the source of both advice and the policy. To become an agent, applicants must secure a license by passing a qualifying examination and meeting certain character and residence requirements. Agents who sell variable products must be registered with the National Association of Securities Dealers (NASD) and have additional state licenses.

Personal financial planners also offer advice on insurance. Most planners also sell insurance for a commission: that is, they are licensed agents. Some planners do not sell insurance. Instead they offer advice on a fee-only basis.

Many accountants offer insurance advice, most of them for a fee and some of them on a commission basis; that is, they are licensed agents. Attorneys often are involved in more complex insurance cases and offer their services as insurance advisors from a legal and tax viewpoint. Bank employees increasingly offer life and health insurance advice, with most required to hold an agent’s license.

The Insurer

Life (and many health) insurance products involve long-term financial guarantees. The insurance guarantee differs from guarantees on other consumer products in at least three important respects.

First, in insurance, the guarantee is the product. There is no inherent value in the pieces of paper called an insurance policy. Only the guarantee embodied in this intangible personal property has value. The true worth of this guarantee is determined by the financial soundness and operational efficiency of the insurer. Second, the duration of the guarantee is potentially much longer than most others. The life insurer states, essentially, that it intends to fulfill all of its obligations under an insurance policy whenever it is called upon to do so – tomorrow or 50 years hence. Third, because of the great information asymmetry between buyers and sellers, buyers cannot easily assess the integrity of the insurer and, hence, the value of its guarantee.

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16 This statement is accurate if the policy is retained until death or is surrendered under circumstances involving no taxable gain. It is less accurate if the policy is surrendered and involves a taxable gain, as explained later in this chapter.
For these three reasons, the financial strength and integrity of a life insurance company are more vital to its customers than is true of most other enterprises.

The Product

The buyer should purchase insurance from insurers that are both financially sound and efficiently operated. Such insurers are in a better position to offer their customers good product value. But how does one go about assessing product value?

An assessment typically involves an illustration of policy values developed by the agent or insurer. The buyer should not necessarily seek that mirage called “the best buy.” Rather, the buyer should seek a policy that seems to offer good value in relation to other policies available from other sound life insurance companies.

Policy Illustrations. A policy illustration shows key policy information and values on a guaranteed as well as a non-guaranteed, current basis. Of course, illustrations for guaranteed cost, non-participating (nonpar) policies show exact future values, as every policy element is fixed and guaranteed. The discussion below does not apply to such policies.

Other policy illustrations show how a life insurance policy’s cash flows and values might evolve over time. Using different assumptions, they also can convey some idea of the sensitivity of illustrated values to different scenarios.

Policy illustrations can be used for comparing one policy with another, although not without some difficulty. Illustrated policy values are to be derived based on the insurer’s current pricing factors (operating experience) as to mortality; expenses, profits, and taxes; and investment earnings as well as on the insurer’s management decisions about sharing favorable results with policyholders. They are not projections of expected future performance. Thus, they show how future policy values would emerge only if current insurer performance and philosophy remained unchanged – a highly unlikely coincidence. Policy illustrations containing non-guaranteed policy elements should not be confused with the actual policy. Illustrations contain some values that are contractually guaranteed, but they also typically contain values that do not appear in the contract itself and that are not guaranteed.

Assessing Illustration Credibility. We know that actual policy values are almost certain to differ from illustrated values for policies containing non-guaranteed elements. Ordinarily, we do not know the amount by which actual values will differ, nor do we know whether any difference will be favorable.

This uncertainty has two dimensions. First, factors wholly external to the insurer will shape future values to a great extent. Thus, future market investment yields will be higher or lower. Inflation will be higher or lower, and epidemics and other calamities will occur or not. Changes in tax and other laws can influence results. All can affect insurer operational results and therefore policy values. Second, factors internal with the insurer will influence future policy values. The quality of the insurer’s underwriting will influence mortality experience. Expenses and investment returns, while shaped by external factors, are within the insurer’s control to a certain degree.

As discussed earlier, mortality, interest, and loading affect life insurance policy pricing. A policy illustration is a composite reflection of assumptions in each area, with actual policy values being determined by experience deviations from the original assumptions. Ordinarily, we expect insurers to base their illustrations on their actual, recent experience. To the extent that illustrative pricing relies on assumptions more favorable than current experience, the insurer effectively is passing much of the price risk to the customer and making its illustrations less comparable to those of other insurers.

Insurers use different ways of allocating investment earnings, with some basing the allocation on their entire portfolio return while others use investment returns for segments of their portfolios. One approach is not necessarily better than the other, but the portfolio average approach is less susceptible to changes in investment yields and will develop a more stable series of values.

Life Insurance Policy Illustration Regulation. Most states have regulations intended “to ensure that illustrations do not mislead purchasers of life insurance and to make illustrations more understandable.” Regulations require that all illustrations be labeled “life insurance illustration” and must contain such basic information as the name of the insurer; the name and address of the agent; the name, age, sex, and underwriting class for the proposed insured; the initial death benefit; and the dividend option or other non-guaranteed elements applied.

A so-called basic illustration must follow a specified format. It must include a table of values based on the insurer’s current pricing factors. Values must be shown to policy maturity, although not every year need be shown beyond the first 10 policy years. The Basic Illustration contains both a Numeric Summary and a Narrative Summary. The narrative summary provides a description of how the policy functions. For flexible premium policies, the Narrative must explain the premium required to be paid to guarantee coverage for the
term of the contract. The numeric summary must show values based on (1) guarantees alone, (2) current assumptions, and (3) a midpoint set of assumptions, all at specified years. Both the agent and the customer must sign this summary indicating that they have discussed and understand that non-guaranteed elements are subject to change and can be higher or lower than those illustrated.

The insurer is to provide a report annually to the policyowner showing the status of the policy. The policyowner must be notified of any change in pricing elements that negatively affects policy values.

**Comparing Illustrated with Actual Values.** Life insurance policy costs can vary greatly. Variations can result from differences in company operational efficiency, investment performance, underwriting policy, profit objectives, costs associated with marketing, and a host of other variables. A higher-cost policy may reflect either better value or simply an expensive policy with little or no justifiably offsetting benefits.

Because many consumers are unaware of cost and quality differences or are bewildered by the seeming complexity of the purchase decision, they engage in little or no comparison shopping. Consumers often erroneously equate a policy’s premium with its cost. The premium is a measure of the annual outlay for a policy, not its cost. Cost includes all elements of a policy (premiums, death benefits, cash values, and dividends), not just premiums.

The objective of any method used to compare two insurance policies is to guide the customer to policies expected to offer good value. The cost of life insurance to any individual is dependent on that particular individual’s unique circumstances and the actual cash flows experienced under the policy. This can be determined only after the contract terminates by death, maturity, or surrender.

Past performance is often a useful indication of likely future performance, and any evaluation of a potential policy should include an examination of the insurer’s historical record with respect to older policies. Unfortunately, relevant historical policy information is not always available and, even if available, may be irrelevant as the insurer’s philosophy or performance characteristics may have changed.

Of course, no method of comparing life insurance costs takes into consideration all possible purchase decision factors. Here we introduce the method mandated by state insurance regulators, the *interest-adjusted net cost* (IANC) method.$^{17}$ It was developed to correct for the omission of the time value of money in a costing method that formerly was widely used.$^{18}$ The IANC analysis is the mathematical equivalent to deriving a net present value of a project, then averaging this value over a set period. The analysis is conducted over set time periods (typically, 10 and 20 years) and weights a policy’s illustrated premiums, death benefits, cash values, and dividends for their timing.

To calculate a policy’s IANC (also called the *surrender cost comparison index*), the premiums and illustrated dividends are accumulated at some assumed interest rate over the selected time period. The accumulated dividends are subtracted from the accumulated premiums. From this figure is subtracted the cash value at the end of the time period. The result of this calculation is then divided by the value of one accumulated per year for the time period at the assumed interest rate and by the face amount in thousands.

State regulations require that prospective life insurance purchasers be given two interest-adjusted cost indices: a surrender cost index and a net payment cost index. The net payment cost comparison index is an estimate of the average annual net outlay (premium less illustrated annual dividend), adjusted by interest to reflect the time when premiums and dividends are paid during a 10- or 20-year period.

Interest-adjusted indices can be of value in showing the relative estimated costs of two or more similar policies. IANC indices (both surrender and net payment) are required to be shown on both a guaranteed and an illustrated basis in most states.

Table A6-3 shows premiums and IANC figures for ordinary life policies issued by several companies. Note that little relationship exists between premiums charged and projected net costs, and that net costs vary greatly among these similar policies. For example, the table shows that Insurer A’s gross premium is $11.83 per $1,000 of insurance, and its projected 20-year IANC is $1.36 per $1,000. This $1.36 index can be interpreted as follows. If a 35-year-old male bought this ordinary life policy and paid the stipulated premium for 20 years and, at that time, surrendered the policy, his average annual cost per $1,000 of insurance would have been $1.36, assuming that (1) dividends were paid exactly as illustrated and (2) the policyowner valued money at 5 percent per year (the interest rate specified by most states’ regulations). Cost here means the average annual amount estimated to be retained by the insurer for its benefit payments and loadings.

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$^{17}$ Several other methods exist. See Kenneth Black, Jr. and Harold D. Skipper, Jr., *Life and Health Insurance* (13th ed.; Englewood Cliffs, NJ: Prentice Hall, Inc. 2000), Chapter 12.

$^{18}$ The *traditional net cost* (TNC) method is not covered in detail here. To derive such cost estimates, one adds the illustrated premiums over a selected time period (usually 10 or 20 years) and subtracts the sum of the illustrated dividends, if any, over the period. From this result is subtracted the policy’s illustrated cash surrender value at the end of the chosen period. Dividing by the face amount (in thousands) and by the number of years in the time period yields the TNC per thousand per year. By ignoring the time value of money, however, this method fails to weight fairly life insurance policy cash flows. Use of this method for comparing policy costs is illegal in most U.S. jurisdictions.
Table A6-3  Interest-Adjusted Net Cost Figures for Selected Ordinary Life Par Policies  
(Males, Age 35)

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Gross Premium Per $1,000</th>
<th>20-Year IANC per $1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$11.83</td>
<td>$1.36</td>
</tr>
<tr>
<td>B</td>
<td>13.95</td>
<td>1.28</td>
</tr>
<tr>
<td>C</td>
<td>14.20</td>
<td>0.34</td>
</tr>
<tr>
<td>D</td>
<td>15.66</td>
<td>1.20</td>
</tr>
<tr>
<td>E</td>
<td>16.01</td>
<td>2.76</td>
</tr>
<tr>
<td>F</td>
<td>21.68</td>
<td>5.49</td>
</tr>
</tbody>
</table>

Source: A.M. Best Company.

Life Insurance in Estate Planning

As is clear from the above discussion, persons of moderate to great wealth can incur substantial transfer taxes. It is true that property left to a surviving spouse is excused from tax, but this generally only postpones the tax bill. Taxes will be due when he or she later dies – the tax man will get his money!

Many individuals do not want certain of their assets to be sold on death to meet estate liquidity needs. They wish to pass timberland, businesses, farms, or other valuable assets to their heirs intact. It is not unusual for these same individuals to hold the great bulk of their wealth in these illiquid assets and to have comparatively small amounts of cash or other liquid assets with which to meet estate cash obligations.

Life insurance can solve the problem. The event that creates the need simultaneously gives rise to the required resources. A short example will illustrate how.

Mary owns the XYZ Paving Company valued at $10,000,000. She is a widow, and her two children work in the business. She wants to leave the business equally to her children. Her financial planner estimates that estate taxes of $4,000,000 will be due on her death. She has $1,500,000 in investments that can be liquidated, so she will need an additional $2,500,000. Where does she get it?

Each child could purchase a policy for $1,250,000 on Mary’s life. Each would be owner and beneficiary, thus avoiding inclusion of the death proceeds in Mary’s estate – which otherwise would be taxed at about 50 percent! Mary can give each child $11,000 each year, gift-tax free, to help meet premium obligations. If the two children have children, Mary could also give each of them $11,000 each year, which could also be used to cover premium obligations while simultaneously reducing Mary’s taxable estate.

On Mary’s death, each child receives $1,250,000 in cash, free of income and estate taxes. Each child then buys $1,250,000 of XYZ stock from Mary’s estate. The estate executor now has the needed $4,000,000 in cash to meet the estate’s cash obligations. Equal proportions of the remaining stock in XYZ are then passed to the children, and the estate is closed. Each child now owns 50 percent of the business, it having passed intact in accordance with their and their mother’s wishes.

Other ways of arranging the transaction are possible, but this example illustrates well how life insurance can play a pivotal role in helping achieve one’s estate planning goals.

EMPLOYER-PROVIDED DEATH BENEFITS -----------------------------------------------

Another source of death benefits can be employee benefit programs. Some benefits also may be available through professional associations, unions, and other organizations. We center our discussion on employer-provided benefits, however, as they account for 90 percent of total group life insurance coverage.

Nature of Coverage

If an employer offers death benefits on behalf of its employees, the coverage is overwhelmingly provided under a plan of group term life insurance, primarily because of favorable tax treatment (see below). Once the insurance becomes effective for a particular employee, the protection continues for as long as he or she remains in the service of the employer (assuming, of course, that the employer maintains the plan in force). Many plans continue coverage after retirement, providing at least enough life insurance to cover the employee’s last illness and funeral expenses and burial costs.
To minimize adverse selection, the amount of group life insurance for which an employee is eligible usually is determined by a system that limits the employee's ability to select the coverage amount. Three approaches are common in determining the amount of coverage:

- A fixed-amount benefit plan places all employees in one category. This type of benefit is used principally in conjunction with union welfare funds.

- Most group life plans base the amount of insurance on a multiple of the employee's earnings. Multiples of 1, 1 ½, or 2 times earnings are common. The trend is to higher multiples.

- When the salary or wage is difficult to determine in advance, as in the case of pieceworkers or salespersons, the insurance may be set according to the position held by the employee. Thus officers, superintendents, and managers may receive $50,000 each; foremen and salespersons $30,000 each; and all other employees $20,000 each.

Conversion Privilege

An insured employee has the privilege of converting his or her group life insurance protection to an individual policy of cash value insurance under certain conditions. Normally, the employee may convert within 31 days after termination of employment or cessation of membership in an eligible classification, to one of the insurer's regular cash value forms at standard rates for his or her attained age. The most significant advantage to the employee lies in the fact that no evidence of insurability is required—in other words, the privilege constitutes a call option that is an invitation to adverse selection. The death benefit provided under a group life insurance contract is continued during the conversion period.

Types of Insurance

Most group life insurance is provided as yearly renewable term insurance—the same generic insurance provided through individual policies. As in the case of individual coverage, the premium rate increases at an increasing rate from year to year. The employee may be unaware of this fact, however, if the plan is noncontributory and/or because of the effect of using an average rate for the entire group.

Some cash value life insurance is offered through the group mechanism. Most such coverage relates to post-retirement group coverage.

Supplemental Coverages

To provide flexibility to employees in tailoring group life insurance protection to their needs, supplemental life insurance sometimes is made available. The supplemental coverage normally is contributory and may have age-banded rates, with the number of options available based on the underwriting requirements of the life insurance company, the wishes of the employer, and legal requirements. The term voluntary life insurance is frequently used to denominate plans in which each employee can choose an amount of additional insurance in increments up to a maximum that is based on the employee's earnings (e.g., three times salary).

Other supplemental coverages sometimes offered include accidental death and dismemberment (AD&D) insurance and dependent life insurance. AD&D insurance provides a benefit if an employee dies, loses the sight of one or both eyes, or loses a hand or a foot directly and solely as a result of an accidental bodily injury.

Employers sometimes also offer dependent life coverage on the employee's spouse and eligible children. The employee is automatically the beneficiary under the coverage.

Limitations of Group Life Insurance

Employer-provided death benefits are important components in many individuals' financial plans. Most group life insurance amounts are set by the terms of the employer's benefit plan and do not necessarily bear any relationship to the individual's need. For some individuals, such insurance may be sufficient to meet all death-related expenditures. For others, especially individuals with families or other substantial financial obligations, additional insurance will be required.

Most employee benefit plans provide no mechanism to secure meaningful additional insurance. Even if additional amounts can be secured, the employee risks losing such coverage upon termination of
employment, because of changing jobs, being fired, or retiring. These limitations should be carefully considered in designing a personal financial plan.

GOVERNMENT DEATH BENEFITS

Government-provided death benefits are important components of many individual’s financial planning. The family of a deceased worker may qualify to receive benefits from one or more government or government-mandated programs. We briefly cover benefits under state-based workers’ compensation programs and delve more in depth into survivor benefits provided through the Social Security system.

Workers’ Compensation

Workers’ compensation survivor benefits may be payable for workers whose deaths are employment related. The benefit typically includes a stated, fixed funeral expense allowance of between $1,000 and $5,000 and a weekly income benefit. The income benefit is stated as a proportion of the worker’s wage, such as two-thirds or one-half, and is subject to an overall maximum amount.

Benefits may continue to the surviving spouse until death or remarriage. Most states limit the maximum duration to a fixed number of years or a specified dollar amount. Benefits payable on behalf of dependent children may cease at the child’s 18th birthday.

Social Security Benefits

The U.S. Social Security system includes several types of death benefit payments on behalf of qualified workers. First, the spouse of a deceased worker is entitled to receive monthly survivor benefits (called a widow’s/widower’s benefit) if (1) he or she has not remarried and is at least age 60 and (2) the worker was fully insured. Thus, no widow’s or widower’s benefit is payable if the surviving spouse is less than 60.

The basic benefit amount (called the primary insurance amount or PIA) is calculated in the same way as the retirement benefit that the worker would have received at the normal retirement age (NRA). The NRA for widows and widowers is age 65 for those who attained age 60 before 2000. It increases for those attaining age 60 in and after 2000, gradually rising to 67 for those attaining age 60 in 2022 (i.e., becoming 67 in 2029). If the surviving spouse begins collecting benefits before NRA, the benefit amount is reduced. It equals 71.5 percent of the PIA if the benefit is claimed at age 60 and proportionately more when claimed after age 60 and before NRA.

A widow or widower may also qualify to receive monthly benefits (called a mother’s/father’s benefit) if he or she is caring for an unmarried, dependent child of the worker. The child must be under age 16 or have been disabled since before age 22. This benefit equals 75 percent of the PIA.

In addition, an unmarried, dependent child of the worker who is under age 18 (or under 19 if attending a primary or secondary educational institution on a full-time basis) or regardless of age, if disabled before age 22, is entitled to a benefit (called a child’s benefit) equal to 75 percent of the primary insurance amount. Dependent parents who are 62 and over are each entitled to a benefit equal to 75 percent of the PIA (parent’s benefit).

In addition to the above income benefits, a lump-sum benefit of $255 (death benefit) is paid on the death of the worker who was living with a spouse or who leaves a spouse or child entitled to monthly benefits.

Benefit Limitations and Reductions

The Social Security law provides limitations on the maximum monthly benefits that can be paid to a family based on the earnings record of one person. This family maximum is the lower of the worker’s average indexed monthly earnings (or actual PIA if higher) or 150 percent of the PIA. The average indexed monthly earnings (AIME) is calculated by weighting the wages on which the worker paid Social Security taxes by the changes in average national wages. The purpose of using the AIME is to ensure that monthly cash benefits reflect changes in wage levels over the worker’s lifetime so that the benefits paid will have a relatively constant relationship to the worker’s earnings before retirement, disability, or death.

All of the above survivorship benefits are available to the family members of a fully insured worker. Even if the worker was not fully insured at the time of death, the family may still qualify for some benefits provided that the worker had been currently insured. A worker is currently insured if he or she were credited with at least six quarters of coverage during the 13-quarter period ending with the quarter in which
he or she died. A currently insured worker’s family can be entitled to (1) the mother’s/father’s benefit, (2) the child’s benefit, and (3) the lump-sum death benefit.

Benefits for Social Security beneficiaries under the age of 65 are reduced if they have earnings from employment that exceed certain levels. As of 2000, benefits are reduced by $1 for each $2 of earnings above $17,000 per year. No reductions occur for retired persons over 65.

The earnings of a person receiving benefits as a family member or as a survivor affect only his or her own benefits and not payments to other members of the family. Perversely, the earnings test applies only to earnings from labor and does not apply to earnings from capital such as investment income, pension benefits, or other so-called unearned income.

Social Security benefits can be subject to income taxation if a beneficiary’s modified adjusted gross income (the adjusted gross income, plus tax-exempt interest income, plus 50 percent of Social Security benefits) exceeds certain base amounts. The base amounts are $34,000 for a single taxpayer, and $44,000 for married taxpayers filing jointly, and zero for married taxpayers filing separately who lived together at any time during the year. Since these amounts are not indexed, more and more people reach “taxable status” over time. The amount included is 85 percent of this excess, but not more than 50 percent of benefits.

THE IMPORTANCE OF MONITORING

If our future evolved exactly as we had estimated, if assumptions as to future inflation rates, interest rates, and other areas proved to be fact, if no important tax law or other environmental changes were made, and if no better life or health insurance or other financial products became available in the future marketplace, no revision in planning for the death peril would be necessary. Clearly, this will not happen.

Important life events such as marriage, divorce, important business undertakings, home buying, birth of children, children attaining financial independence, change in employment status, and the like will occur and should trigger an automatic planning reevaluation. Significant changes in environmental factors should also trigger reevaluation. Changes in government benefits, inflation rates, interest rates, employee benefit programs, tax laws, and a host of other variables can cause a program to go off its mark. New insurance and other financial products can render older products obsolete.

DISCUSSION QUESTIONS

1. Why might an individual choose not to purchase life insurance equal to her human life value?

2. The family’s insurance agent advised them as follows: “you should purchase $100,000 of whole life insurance now on little Jimmy’s and little Susie’s lives while they are young and insurable. After all, you do want them to have their own insurance, don’t you?” What is your assessment of this advice?

3. Sam purchased a $250,000 universal life policy 10 years ago. He has paid $20,000 in premiums into the policy. The policy’s cash value is now $26,000. He is the insured and owner of the policy and his wife, Linda, is beneficiary. Answer the following questions independently of each other:
   a. If Sam died today, would the death proceeds be includable in his gross estate? Explain your answer.
   b. If Sam died today, would the death proceeds be subject to income tax? Explain your answer.
   c. If the policy were surrendered today, what would be the income tax consequences?

4. Suggest circumstances under which employer-provided group term life insurance benefits might be (a) sufficient and (b) insufficient as a family’s entire life insurance program.

5. Describe the death-related Social Security benefits potentially available to a deceased worker who was fully insured.
Chapter A7

Retirement

INTRODUCTION

In a personal financial (risk management) plan, considerable emphasis is almost always given to savings. People save for many reasons, most likely to smooth consumption over their expected life span. Thus, we save money to be able to purchase relatively expensive items such as automobiles, houses, and a university education. We also save to provide precautionary funds to cover unanticipated expenses, such as those occasioned by unemployment, property losses, disability, and death. One of the most important reasons for saving is to have income during our years of retirement. This chapter focuses on this risk exposure.19

As with the preceding chapters, we structure the presentation around the risk management process, beginning with a discussion of assessment. After a brief overview of loss control, we take the majority of the chapter to explore the most common means of financing the retirement exposure.

ASSESSMENT OF THE CONSEQUENCES OF RETIREMENT

In thinking about retirement planning, individuals should consider both the psychological and economic dimensions, both of which we explore here.

Some Psychological Aspects of Retirement

Surveys by the Employee Benefit Research Institute (EBRI) reveal that individuals tend to fall into one of five categories in terms of their attitudes toward individual finances and retirement planning, for which the Institute has developed labels and characteristics. These are shown in Insight A7-1. Which category best describes your personality type?

Retirement carries some seeming paradoxes.20 The first paradox concerns the perception by retirees as to the adequacy of their financial resources. The majority of older Americans consider their incomes sufficient to meet their current needs. They express high levels of satisfaction with these resources; indeed, they express greater satisfaction than do middle-aged workers. Yet, older Americans have less than one-half of the income of middle-aged Americans.

Additionally, the correlation between objective levels of financial resources and satisfaction is weaker among the elderly than among other adults. Low-income elderly are almost as likely to be satisfied as their more financially advantaged peers. In statistical terms, income and wealth explain about 50 percent of the perception of financial well being for all adults, but only 25 percent for older adults. Older adults seem to view financial well being differently from their younger peers.

All is not positive, however. A majority of older adults report that they are afraid that their financial resources will be insufficient to meet their future financial needs. This perception seems largely unrelated to objective levels of financial resources, with high-income retirees being as likely as low-income retirees to be worried about the adequacy of their resources.

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Insight A7-1  Financial Personality Types

Based on survey results and a methodology that measures individual readiness for retirement, the Employee Benefit Research Institute (EBRI) has developed five distinct personality profiles related to retirement planning. They are as follows:

- **Planners** believe that anyone can have a comfortable retirement if they just plan and save. This group is composed of disciplined savers. They always research and plan for big purchases, enjoy financial planning, and are willing to take substantial financial risk for substantial financial gain. About three-fourths believe that they are investing their retirement savings wisely, and almost 90 percent are confident that they will have enough money to live comfortably in retirement.

- **Savers** are very much like planners, except that they are more cautious, which leads to risk-averse investment behavior. One-half are not willing to take any financial risks, no matter the potential gain. They characterize themselves as savers, not investors.

- **Strugglers** share many of the attitudes of savers, but they are frequently set back from their financial goals by unexpected events. This makes them less confident about their retirement prospects.

- **Impulsives** believe that anyone can have a comfortable retirement if they just plan and save, but few consider themselves to be disciplined savers. In fact, they are frequently set back from their financial goals, frequently spend money when they did not plan to buy anything, and tend to carry credit card debt.

- **Deniers** believe that it is pointless to plan for retirement and, more than any other group, believe that retirement planning takes too much time and effort. Many are impulse shoppers, are frequently set back from their financial goals, or unwilling to take any financial risks, no matter the potential gain. Most are not confident about their retirement prospects.


Thus, with regard to the present, the majority of older adults are satisfied with their financial resources, regardless of their objective wealth levels. In contrast, with regard to the future, most older adults are worried about the adequacy of their financial resources, again regardless of their objective wealth levels. Moreover, these fears seem to be as prevalent among the younger old as among the oldest-old. We might have expected fear of the future to decline among the very old, as they view a future that is, realistically, quite short, but such is not the case. We summarize in Insight A7-2 key findings of the 2006 Retirement Confidence Survey, which are in line with the paradox we present here.

Social psychologists suggest that levels of satisfaction tend to be high when objective circumstances are (1) congruent with one’s aspirations or (2) perceived as equitable and fair. Thus, an important reason for the reported high levels of satisfaction with financial resources in later life is that financial aspirations tend to diminish in late life. Older adults simply do not aspire to the levels of financial resources desired by younger individuals and are thus more satisfied. Also, the elderly seem to view the world as more equitable and fairer than younger people. This too contributes to their higher reported levels of satisfaction.

Fear of the future explains several otherwise confusing behaviors. Retirees often deprive themselves of legitimate expenditures today because it is possible that the money may be needed for more serious problems in the future. Thus, they may delay seeking needed medical care, refuse to purchase services that would make their lives easier, and generally deprive themselves of needed products and services. This pattern is especially prevalent among older couples where economic resources may be perceived as inadequate to meet possible long term care needs for two persons whose life expectancies may be quite different.
Insight A7-2 Will More of Us Be Working Forever?

The 16th annual retirement survey by the Employee Benefit Research Institute (EBRI) suggests that many workers are not ready to undertake the task of planning for retirement and are at risk of having to work far longer than they expect. Here is a summary of the key findings from the survey:

- **Modest Savings.** More than half of the worker-savers (52 percent) report total savings and investments (not including the value of their primary residence or any defined benefit plans) of less than $50,000. However, the large majority of workers who have not saved money for retirement have little in savings at all: 75 percent of them have assets total less than $10,000.

- **Expected Benefits Unlikely to Materialize.** Many workers count on employer-provided benefits in retirement that are increasingly unavailable. Only 40 percent of workers answer that they or their spouse currently have a defined benefit plan, yet 61 percent say they expect income from such a plan in retirement. Likewise, workers are as likely to expect (37 percent) as retirees are to receive (40 percent) retiree health insurance through an employer, despite the fact that the number of employers offering this benefit is declining.

- **Unrealistic Retirement Ratios.** Workers appear to use unrealistically low income replacement ratios. While the majority (59 percent) prefers a standard of living in retirement that is the same or better than in their working years, half think they can maintain a comfortable retirement on 70 percent or less of their pre-retirement income.

- **Ability to Keep Working.** The average retiree today retired at age 62, but the average worker expects to retire at age 65. Workers are more than twice as likely to expect to work for pay in retirement (67 percent) as retirees are to have actually worked (27 percent).

- **Some Confidence Levels not Realistic.** One-quarter of workers are very confident about their financial security in retirement (24 percent), while more than 4 in 10 are somewhat confident (44 percent). However, at least some of the very confident workers may be overconfident: 20 percent of them currently do not save for retirement; 39 percent have less than $50,000 in savings; and 37 percent have not done a retirement needs calculation.

- **Auto-enrollment well Received.** A majority of the workers favor automatic enrollment – automatically increasing the percentage contribution of salary along with an increase in pay is received (65 percent) and automatically investing contributions for the employee (59 percent). Plan participants and non-participants are equally likely to favor each of these automatic features.


Underlying this fear is the issue of personal control. Americans hold strong beliefs relative to personal control. We desire to control the major elements of our lives, and, for events that we cannot control, we desire to control how they are resolved. Financial assets are a control-enhancing and control-preserving resource. The emotional intensity associated with the fear that financial assets will be inadequate for future needs is more than concern about money: it is concern that we will lose control, personal autonomy, and ultimately independence. An understanding of these and other psychological dimensions of retirement and retirement planning will aid both the individual and his or her counselor in making better suited decisions.

The Economic Dimensions of Retirement

Chapter 2 discussed the theoretical basis for savings. Recall that the life cycle hypothesis suggests that risk-averse individuals will maximize their lifetime utilities by smoothing their lifetime consumption pattern. This smoothing is accomplished through a program of saving during our productive working years and drawing down those savings during our retirement years.
But how is this smoothing accomplished in practice? Consider, first, that — as with other risk exposures faced by individuals — the retirement exposure has two dimensions: the likelihood of reaching retirement age (i.e., frequency) and the amount needed (severity).

**Likelihood of Retirement**

In the previous chapter, we explained that the likelihood of death could have little relevance for individual financial planning because a given individual will either live or die within a certain time period. The same sentiment applies to the retirement exposure. A given individual will either live into his or her retirement years or not.

Even so, individuals are interested in the likelihood of their surviving, as this shapes their subjective assessments of how best to deal with the retirement (and death) exposure. If we perceive that the likelihood of our dying before retirement is high — perhaps because of an existing health condition or a family history of early death — we may be less inclined to embark on a substantial retirement savings program. Instead, we might elect to devote the great majority of our disposal funds to current consumption, as this maximizes our lifetime utility.

Of course, the retirement risk is precisely the opposite of the loss-of-life risk of the previous chapter. The potential death-related risk is that we will die too soon, leaving those dependent on us with inadequate financial resources. The potential retirement-related risk is that we will die “too late” (i.e., outlive our financial resources), imposing a burden on those who would care for us (or cause a reduction in our standard of living).

Individuals today live longer than at any time in history. When Germany, under Chancellor Otto von Bismarck, established the world’s first formal public retirement program in the 1880s, age 65 was set as that country’s national retirement age. With a life expectancy of 45 years at that time, very few Germans actually lived long enough to collect anything. (It is perhaps surprising that more than a century later, age 65 remains synonymous with retirement.) At the beginning of the 20th century in the U.S., life expectancy was about 50 years. People typically worked until they died, with few living long enough to retire! As a consequence, the notion of retirement was foreign to most citizens.

In the less distant past, the average person retired at age 67 and died at age 72. Provision needed to be made for only five years’ retirement income on average. Today, the average 65-year-old U.S. woman with at least a 9th grade education can expect to live to age 90, and a man can expect to live to age 82. Indeed, more than one in four 65-year-old U.S. men and women can expect to live to age 90. The proportion attaining age 90 in 1960 was only about 14 percent.

Moreover, despite longer life spans, better health, and changes in laws to encourage employment, individuals have been retiring earlier than formerly. The average retirement age in the U.S. has declined from 67 to 63 since the 1950s. Because of these facts, substantially increased funds are needed to provide for retirement security.

Increasing longevity also affects the composition of families, with a concomitant need for special planning. For example, we know that death rates for men are higher than are those for women. Additionally, men tend to marry women younger than themselves. This combination means that older persons are more likely to be widows than widowers. Thus, at age 75 and older, two-thirds of men but only one-quarter of women live with a spouse. At age 65, there are 100 men for every 150 women. At age 85, the ratio becomes 100 men to 260 women. These figures translate into the following: some 80 percent of men die married, while 80 percent of women die single.

**The Retirement Planning Process**

Both death-related and retirement-related information are often gathered at the same time. The needed information includes existing investments that could be used to provide retirement income and likely benefits from employer-sponsored and government retirement plans and any other sources of retirement income. If the time to retirement is long, estimates will be gross approximations only.

Retirement income objectives usually are couched in general terms, such as being able to maintain one’s current standard of living during retirement. Of course, work-related expenses and savings for retirement cease on retirement. Also, Social Security, federal income, and state and local taxes typically are lower or even are eliminated. Many experts, therefore, suggest a retirement income objective of a minimum of 70 percent of pre-retirement wages.

Computer-assisted retirement planning is routine today. Sophisticated programs are available from commercial software vendors and numerous web sites. Financial advisors as well as consumers rely on these programs, both to guide them through the process and to conduct the analysis. Nonetheless, an understanding of the actual analysis process is important.
Thus, to derive the sought-after figure, the present value of future income needs is netted against the present value of future estimated resources. The result is a measure of the net present value of the shortage of resources to meet the desired income objective.

Interest rates used should be reasonable in light of historical and current trends, as should projected inflation rates. Utilizing the assumed inflation rate, we can determine the (inflated) level of income desired at retirement age, based on a projection of the current-day equivalent. Next, the expected annual income resources are netted against the desired annual income needs. Three common classes of resources are: (1) government, (2) employer-sponsored income, and (3) income from individual sources.

The same Social Security estimation quandary exists for retirement planning and pre-death planning, although it is more complex here. The additional complexity comes about because the Social Security survivor benefit is a known, calculable product, and near-term projections probably are reasonable. For persons who are not near retirement, however, projecting Social Security retirement benefit levels several decades from the present is speculative. As a result, these calculations should be viewed as providing gross estimates only. In any event, Social Security retirement benefits should be netted against the retirement income need to derive annual deficit figures.

Employer-sponsored retirement benefits can be equally, if not more, troublesome to estimate. Individuals change employers, and employers change their retirement plans. Even so, an attempt should be made to establish a conservative estimate for retirement income from employer-sponsored sources. One approach is to determine from the employer the employee’s projected benefit level and then to determine an expected wage replacement ratio at retirement. The wage replacement ratio is the fraction found by dividing (1) the post-retirement, employer-sponsored retirement income by (2) the pre-retirement annual wage.

Thus, if the employer-sponsored retirement income is expected to be 40 percent of the pre-retirement wage level, and if the retirement income need is 70 percent of the pre-retirement wage level, one need examine only a 30 percent net retirement income level from non-employer sources. Projected personal savings and investments also should be netted against the retirement income need. Using either of two approaches discussed in Chapter 9, one then derives an inflation- and interest-adjusted figure for the present value of the future income stream as of the planned retirement age.

An Illustration

An example will aid understanding. Assume that Helen, aged 45, earns $75,000 today and anticipates that her future raises will average 6 percent per year. She anticipates retiring at age 65 on 70 percent of her then pre-retirement income.

Her anticipated income just before retirement is found by accumulating her current $75,000 salary at 6 percent for 20 years, to yield about $240,000. In other words, Helen expects to be earning $240,000 per year just prior to retirement. (This amount seems large, but if inflation were to average 4 percent over the 20-year period, the actual purchasing power of the $240,000 in today’s dollars would be about $110,000.)

Assume that Helen’s Social Security benefit is estimated to provide an inflation-adjusted retirement income equal to 20 percent of her pre-retirement salary. Assume further that Helen estimates that her employer-sponsored plan will provide a retirement income of an additional 30 percent of her pre-retirement salary. Thus, Helen believes that the combination of Social Security and her employer’s retirement plan will meet 50 percent of her 70 percent retirement goal. She need only provide for the additional 20 percent, or $48,000 ($240,000 x 0.20), from personal resources.

If Helen wishes to maintain purchasing power throughout her retirement years, the $48,000 figure should increase yearly by the inflation rate. Thus, with a 4 percent inflation assumption, Helen will need $49,920 the following year, $51,917 the year after that, and so on, to maintain a real income of $48,000.

If she wanted to purchase an annuity to provide this amount, the probable cost at age 65 might be $700 to $1,100 for each $100 of annual income desired. Using the higher figure to implicitly account for inflation, Helen should aim to have accumulated about $528,000 ($48,000 x $1,100/$100) by age 65.

To accumulate this sum through level contributions to savings, Helen must make annual payments of about $12,000, if the savings medium earns 7 percent. If Helen would like her annual retirement savings to grow with her expected 6 percent salary increases, she could begin saving about $5,500 and increase it by

\[
\text{An Illustration}
\]

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6 percent per year. This steadily increasing contribution would also grow to the needed $528,000 amount if all assumptions were realized.

Next, the alternative means of accumulating the needed sum should be explored. This is the topic of later sections of this chapter.

The key to sound plan implementation is less the mechanics and more a firm commitment by the individual to make the necessary contributions regularly. More individually crafted retirement plans fail from lack of commitment than for any other reason.

As with pre-death planning, actual results under one’s retirement plan are highly unlikely to track those assumed. This necessitates periodic fine-tuning and, occasionally, a complete overhaul. Important life events and environmental changes can materially affect results.

LOSS CONTROL APPLIED TO RETIREMENT

The concept of “loss” control – minimizing the likelihood of the event occurring – applied to the retirement exposure makes less sense and highlights why we define risk to include both positive and negative deviations from expected outcomes. With the individual loss exposures discussed in the previous chapters, we were chiefly concerned with the possibility of unexpected “bad” things happening – fires, lawsuits, disability, death. The best that we can do is to engage in activities that minimize the likelihood of these events occurring and, if they do occur, of minimizing their severity.

With the retirement exposure, we also want to avoid adverse consequences which, in this instance, mean that the individual reaches his or her desired retirement age with insufficient resources to retire or, at least, to retire with desired financial resources. An important issue here is the extent to which we can control the timing of our retirement, its duration, and the amounts available to us as retirement income. The duration of retirement is influenced by our lifestyles, discussed in the previous chapter. The amounts available to us in retirement depend on the various sources of financing available to us (see next section).

A part of plan implementation involves a decision about when to retire. Many people are fearful of making the wrong retirement decision. They are concerned that their savings will be insufficient to provide for an adequate retirement (as one commentator put it: “you will run out of money before you run out of life”) or that they are not prepared mentally for the adjustment to retirement.

Employee Benefit Research Institute (2006) reports that about one-third of today’s workers report that they expect to retire prior to reaching age 65 – specifically 13 percent before age 60 and 20 percent between the ages of 60 and 64. Slightly more than one quarter of workers plan to retire at age 65, while one-quarter plan to retire at age 66 or later with 5 percent expecting never to retire. In contrast to current workers’ expectations, most current retirees report actual retirement at ages younger than 65. Table A7-1 shows results by age group.

For 43 percent of actual early retirees, the earlier retirement was not by design. About 4-in-10 retirees who left the work force earlier than planned did so because of health problems. Other reasons included corporate downsizing or closure (14 percent), family reasons (14 percent), and other work-related reasons (12 percent). If current workers follow the pattern set by today’s retirees, many will also retire earlier than planned and will do so for negative reasons.

Financial considerations always play an important role in retirement decisions. However, we should also be attuned to the social, health, and psychological dimensions. When workers see their peers retiring, they may feel that it is time to do likewise. Moreover, the degree of satisfaction we derive from our jobs and the demand for our services influence the timing of retirement. These influences about when to retire are not easily estimated when we are young.

Many employees are not truly prepared for retirement emotionally, especially if they retire because of corporate restructuring and accompanying early retirement packages. Outplacement firms have found a market niche in assisting employers and employees in this process. Even when retirement is unrelated to corporate restructuring, some seven in ten employers offer retirement counseling and preparation services to employees.

Even so, most workers state that they need additional help from a financial advisor in making retirement-related financial decisions, according to Merrill Lynch surveys. Also, estate planning receives much more attention in the retirement years, as people seek to arrange their financial affairs.

Retirement remains one of life’s most difficult transitions. A Roper Starch survey revealed that 41 percent of retirees experience a difficult adjustment. In contrast, only 12 percent of newly married and 23 percent of new parents find the adjustment to be difficult. Younger retirees experience the most difficult transition.

25 The first-year savings amount would be found as follows:

\[
\frac{\$528,000}{1.06^1} = \$528,000 \times 1.06^1 = \$528,000 \times 1.1342 = \$528,000 + 96.44 = \$5,476.
\]
Table A7-1  Expected and Actual Retirement Ages for Current Workers and Current Retirees

<table>
<thead>
<tr>
<th></th>
<th>Planned (Percent of Current Workers)</th>
<th>Actual (Percent of Current Retirees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 55</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td>Age 55 to 59</td>
<td>7%</td>
<td>16%</td>
</tr>
<tr>
<td>Age 60 or 61</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>Age 62 to 64</td>
<td>10%</td>
<td>23%</td>
</tr>
<tr>
<td>Age 65</td>
<td>27%</td>
<td>14%</td>
</tr>
<tr>
<td>Age 66 or older</td>
<td>25%</td>
<td>10%</td>
</tr>
<tr>
<td>Never retire/never worked</td>
<td>7%</td>
<td>7%</td>
</tr>
</tbody>
</table>


FINANCING THE RETIREMENT EXPOSURE

Retirement typically is financed through some combination of these five sources:

- Personal savings;
- Employer-sponsored benefits;
- Government benefits;
- Post-retirement employment; and
- Intergenerational transfers.

The relative importance of each source for the most recent year available is as follows: 38.9 percent of retirees’ income in 2006 came from Social Security, 19.3 from pensions and annuities, 15.4 from income from assets, 23.7 percent from earnings, and 4.5 percent from other sources. Reliance on these sources of income differs greatly between poor and wealthy families. Thus, nearly all of pension and savings income goes to the wealthiest one-half of the retired population. In contrast, Social Security benefits are the major source of retirement income for almost two-thirds of retirees aged 65 and older. It represents 90 percent or more of income for about one-third of these retirees and the sole source for 18 percent.

For retirement planning purposes, we should focus our primary efforts on the first three sources, with the first deserving the most attention. The reason is that we cannot be certain of post-retirement employment or intergenerational transfers as income sources during retirement. Health, family, or other considerations may preclude our being able to work during retirement. And most of us cannot be certain that caring, generous relatives or friends will themselves be able or necessarily want to come to our rescue were we to become destitute.

Moreover, government-provided benefits are fixed, comparatively modest payments, over the amounts of which we have no control. For most of us, employer-sponsored benefit plans are similarly external givens. Employer-sponsored plans are founded on what the employer perceives it can afford, not on what the employee may need to retire. Further, employer plans can be discontinued altogether or, as is happening with increasing frequency, changed from a defined benefit to a defined contribution approach – usually resulting in lower retirement benefits and greater risk for the employee. For the above reasons, personal savings proves to be the main vehicle for ensuring retirement income adequacy for most of us.

Personal Savings

The proportion of retirement income accounted for by personal assets continues to inch up and is expected to grow in the future. The options as to how to save for retirement are as numerous as there are savings and investment instruments.

Saving via Annuities

Space does not permit an examination of the many savings and investment options available to us. This is the proper subject for an investment textbook. Suffice it to say that the range extends from relatively conservative saving instruments – such as passbook savings accounts and certificates of deposits at banks,
Insight A7-2  Considerations in Purchasing a Deferred Annuity

The purchaser of a deferred annuity can place undue emphasis on the stated current interest rate. Loading charges can be important. Thus, a flexible premium deferred annuity (FPDA) crediting 8.5 percent may not develop values as high as one crediting 8.0 percent because of loadings. In any event, prudence should be exercised in interpreting results that show high interest rates (by historical standards) projected for many years and even decades into the future. The wise course of action is to examine the insurer’s past product performance record in an effort to develop a degree of confidence in the illustrated future values.

In some instances, an annuity that performs well during the accumulation phase may not offer equally attractive performance during the liquidation phase, or vice versa. Clearly, the buyer strives to have the best of both worlds. Yet the rates used to convert accumulated fund values to monthly payments can vary substantially. For example, one study found that monthly annuity lifetime payments varied between $1,080 and $781 for a male, aged 65, whose cash value was $100,000.

money market funds, and short-term government securities such as 3-month treasury bills – to somewhat riskier investments – such as government and corporate bonds, houses, land, and fixed annuities issued by insurers – on to still riskier investments such as diamonds, gold, artwork, common stock, mutual funds, and variable annuities. Because this book is about insurance, we will explain annuities, an increasingly popular means of saving for retirement.

As discussed in Chapter 21, an annuity is simply a series of periodic payments. In contrast to life insurance which has as its principal mission the creation of a fund, an annuity has as its basic function the systematic liquidation of a fund. Of course, most annuities are also accumulation instruments, but this is the mechanism for developing the fund to be liquidated. The purpose of the annuity is to protect against the possibility of outliving one’s income – just the opposite of life insurance.

Each payment under a life annuity, which continues payments for as long as the annuitant is alive with nothing being paid thereafter, may be considered to represent a combination of principal and interest income and a survivorship element. Although not completely accurate, we can view the operation of an annuity as follows: if a person dies precisely at his or her life expectancy, he or she would have neither gained nor lost through utilizing an annuity contract. Those annuitants who die before attaining their life expectancies would not have received annuity payments equal to their contributions (plus foregone interest), with the difference between that which they contributed to the insurance pool and that which they received being used to provide continuing income to those who outlive their life expectancies. As no one knows into which category he or she will fall, the arrangement is equitable and can succeed, from the company’s point of view, through the operation of the law of large numbers.

Annuities are simply another type of insurance, and both life insurance policies and annuities are based on the same principles. Pooling underlies both, and premiums in each case are computed on the basis of probabilities of death and survival as reflected by mortality tables.

In Chapter 21, we classified existing annuity products by the number of lives covered, by premium payment option (single or periodic), by beginning of benefit payments (immediate or deferred), by benefit redemption option (e.g., life annuity, period-certain), and by redemption option (e.g., currency or unit-linked). In this chapter, we further examine flexible-premium deferred annuity.

The flexible-premium deferred annuity (FPDA), one of the most popular individual annuity contracts, permits the contract owner to pay premiums whenever and in whatever amount he or she wishes. It provides for the cash value to be applied at some future time designated by the contract owner to supply an income, if elected, for the annuitant. Although a premium payment is not required each year for FPDA contracts, companies usually establish a minimum acceptable payment level (e.g., $25 to $50) if a payment is to be made, and also encourage owners to establish target payment plans.

Keen competition for consumer savings among life insurers and between life insurers and other financial institutions continues to result in better-value FPDA contracts. The trend is toward FPDA contracts with little or no front-end loads. Rather, most insurers use a back-end load or surrender charge on policy termination, as with some of the cash value life insurance products discussed earlier.

The surrender charge is usually stated as a percentage of the total accumulation value and decreases with duration. Surrender charge percentages and durations vary considerably; some first-year charges are as high as 20 percent, but most are within the 5 to 10 percent range. A few policies do not have identifiable back-end or front-end loads.
Table A7-2  Hypothetical Flexible-Premium Deferred Annuity Accumulations

<table>
<thead>
<tr>
<th>Contract Year</th>
<th>Premium Payment</th>
<th>Yearend Cash Values Based on</th>
<th>Yearend Cash Surrender Values Based on</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Guaranteed Rate (4%)</td>
<td>Current Rate (8%)</td>
</tr>
<tr>
<td>1</td>
<td>$2,000</td>
<td>$2,080</td>
<td>$2,160</td>
</tr>
<tr>
<td>2</td>
<td>2,000</td>
<td>4,243</td>
<td>4,493</td>
</tr>
<tr>
<td>3</td>
<td>1,000</td>
<td>5,453</td>
<td>5,932</td>
</tr>
<tr>
<td>4</td>
<td>1,000</td>
<td>6,711</td>
<td>7,487</td>
</tr>
<tr>
<td>5</td>
<td>500</td>
<td>7,499</td>
<td>8,626</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>7,799</td>
<td>9,316</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>8,111</td>
<td>10,061</td>
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<tr>
<td>8</td>
<td>0</td>
<td>8,436</td>
<td>10,866</td>
</tr>
<tr>
<td>9</td>
<td>10,000</td>
<td>19,173</td>
<td>22,535</td>
</tr>
<tr>
<td>10</td>
<td>5,000</td>
<td>25,140</td>
<td>29,738</td>
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<tr>
<td>11</td>
<td>0</td>
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<td>32,117</td>
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<td>12</td>
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<td>13</td>
<td>300</td>
<td>28,591</td>
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<td>14</td>
<td>493</td>
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<td>16</td>
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<td>19</td>
<td>8,000</td>
<td>52,869</td>
<td>77,936</td>
</tr>
<tr>
<td>20</td>
<td>15,000</td>
<td>70,583</td>
<td>100,371</td>
</tr>
</tbody>
</table>

Fixed-value FPDA contracts typically guarantee a minimum interest rate – often in the 3.0 to 4.0 percent range, depending on economic conditions at the time of issuance. While this rate may seem low, it must be recognized that the guarantee could easily span three, four, or more decades and, therefore, could prove to be exceedingly valuable. Insight A7-2 offers some cautions about annuity interest rates and other aspects of purchase.

The actual rate of interest credited to cash values of traditional FPDA is a function of the earnings rate of the insurer and its desired competitive position within the financial services marketplace. All rates are subject to revision by the insurer, although most companies guarantee the current rate for at least the first contract year.

Variable FPDA usually contain no interest rate guarantee. The interest credited to the cash value varies directly with the return earned on the separate account assets backing the annuity. The majority of variable annuities are FPDA.

Table A7-2 illustrates the operation of a hypothetical traditional FPDA during the accumulation phase. This annuity credits 8 percent on the full premium payment; that is, it has no front-end load. It provides for a graded surrender charge of 7 percent in the first year, with a 1 percent per year decrease thereafter. The illustration shows both guaranteed (at 4 percent) and nonguaranteed projected values and the difference between the cash surrender value and the cash value. A variable premium pattern is assumed. Note that the cash values and cash surrender values are the same as from the eighth contract year.

The retirement income amount provided by a FPDA depends on the accumulated cash value, the annuitant’s sex (where permitted) and age, and the payout option selected. The usual options are available, with each providing both a guaranteed minimum interest rate and a current rate.

**Uses and Limitations of Annuities**

Annuities can be useful in both the tax-qualified and non-qualified markets. The annuitant has the benefit of the investment management offered by insurers. This can be especially important for older persons who may desire to be freed of investment cares and management.

Annuitants enjoy monthly incomes at retirement age that are equal to or higher than those obtainable through the customary channels of conservative investment, if they are willing to have the principal liquidated and enjoy reasonably good health. Each year, the insurer pays to the annuitant the current income on his or her investment plus a portion of the investment itself. If the buyer exercises care in the purchase decision, the net return on his or her annuity should prove competitive with investments of...
comparable quality. When tax benefits are considered, the net return often will exceed those of comparable savings media.

The income is certain; the annuitant may spend it without fear of outliving it. In the absence of a life annuity, the danger exists of spending too much or too little. With the annuity, the scale of spending is not only increased but is definite in amount.

Purchasers of variable annuities undertake a mutual fund-type investment. Insurer separate accounts are, in effect, mutual funds and carry equivalent risk/reward characteristics. Insurers today typically offer a range of investment options — sometimes from a menu of a dozen or more funds (separate accounts) and often with different investment managers. The investment manager’s performance record can be a useful guide to possible future performance, although it offers no guarantee of success.

Annuities enjoy preferential income tax treatment. The interest credited to the cash value during the accumulation period is not currently taxed to the annuity owner, unlike the treatment of other savings media. There are no limits as to how much one can shelter from current income taxation within an annuity. However, withdrawals from an annuity before age 59½ are generally subject to a 10 percent penalty tax plus regular income taxation.

At the time that the individual enters onto the annuity, a portion of each payment is taxed based on the relationship between the untaxed interest accumulations within the contract and the cash value. Thus, assume that you contributed $3,000 per year for 20 years into an annuity — for a total of $60,000 — and that interest credits over the period have totaled $90,000, resulting in a cash value of $150,000. If you elect to have the cash value annuitized and depending on the payout method selected, about 90/150th of each payment would be subject to income taxation.

Risks Inherent in Savings

We know that, in general, the greater the risk that we are willing to bear, the higher is the expected return. Savers (investors) face three main types of risks, which we defined in Chapter 1 and briefly elaborate below:

- **Credit risk** stems from the possibility of the issuer becoming insolvent or otherwise defaulting on its obligation, with the result that the investor loses all or a portion of his or her investment. Government securities have no credit risk; low-grade bonds may have substantial credit risk.

- **Interest rate risk** stems from general market interest-rate fluctuations that, in turn, cause investments to fluctuate in value. Long bonds issued by corporations and government have substantial interest rate risk — their value can change greatly with changes in market interest rates. Passbook savings and cash values of traditional annuities typically have little interest rate risk.

- **Liquidity risk** is the possibility of the investor not being able to sell (or buy) a security quickly enough or in sufficient quantities because selling (buying) opportunities are limited. Securities listed on organized exchanges, such as the New York Stock Exchange, the American Stock Exchange, and the NASDAQ, have little liquidity risk. A ready market almost always exists. Fine works of art, a family business, and a house may prove difficult to sell quickly.

The decision as to the appropriate investment medium for a given individual will turn on his or her personal risk aversion that, in turn, seems to be related to age. In general, it appears that, as we approach retirement age, we are less inclined toward the risky end of the investment spectrum. When retirement is decades away, there is more time to recover from the adverse investment swings inherent in riskier media.

**Tax-Qualified Savings Alternatives**

Savings programs can be classified as to whether they are tax qualified. A **tax-qualified savings program** is one for which contributions to the program reduce the person’s taxable income and annual earnings from program investments are not currently taxable to the owner. To be tax qualified, the program must meet certain eligibility and other requirements specified in the U.S. Internal Revenue Code (IRC).

Contributions to a program that is not tax qualified have no effect on an individual’s taxable income and, usually, investment income from the program is currently taxable. There are no limitations on non-tax-qualified savings as to contribution timing, amount, or nature of savings media. Additionally, withdrawals never incur a tax penalty and compliance with the myriad federal regulations of qualified plans is avoided.

We discuss four tax-qualified means by which workers commonly save their personal money for retirement. For purposes of this discussion, we define as personal savings any tax-qualified retirement

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26 Such favorable tax treatment is criticized by tax economists as distorting the savings market by offering products sold by one type of financial intermediary tax-based advantages over products sold by other financial intermediaries.
savings program that allows discretionary contributions by the worker and, thereby, requires the worker to forego current consumption. Therefore, certain retirement plans that technically are employer-sponsored are covered. Other employer-sponsored plans discussed later generally do not permit discretionary employee contributions, and the employer makes some or all contributions to such plans.

**401(k) Plans**

A **401(k) plan** is an employee savings plan that allows employees to defer a portion of their pre-tax income and to defer taxation on the earnings from the plan. With some grand-fathered exceptions, only for-profit corporations can establish 401(k) plans.

A 401(k) plan provides current as well as future tax savings for employees. Employee participation is voluntary and the employee can determine how much of his or her wages, subject to a maximum indexed amount, will be contributed each year. Current (taxable) salary is reduced by that amount and is placed directly in the 401(k) plan by the employer. The employee may decrease or even eliminate future contributions simply by changing his or her salary reduction agreement.

The federal maximum annual contribution was $15,500 in 2007 and remains unchanged for the year of 2008. (In fact, limits after 2006 are indexed to the cost-of-living increases, in $500 increments.) In addition, so-called catch-up provisions for workers aged 50 and older allow such workers to contribute an additional $5,000 per year above the maximum allowable contribution.

To encourage employees to participate in the plan, many companies match a portion of the employee’s elective deferrals up to a certain percentage of the employee’s salary. Usually, the employer will match from 25 cents to a dollar for every dollar the employee defers up to a certain percent (frequently 6 percent) of the employee’s salary. A $0.50 match is the most common.

No tax-free withdrawals from 401(k) plans are allowed before age 59½, except for participants who die, become disabled, retire, change jobs, or suffer financial hardship; who have fund balances paid over at least five years; and who incur fund payments for certain corporate reasons. Amounts withdrawn before age 59½ wherein the participant fails to meet any of these reasons incur full income tax plus a 10 percent penalty tax. Withdrawals must begin by age 70½. Some 401(k) plans permit loans to employees. Loans are limited to the lesser of $50,000 or 50 percent of the vested value of an employee’s account. Many employers permit employees to make their own investment choices. Employees can trade individual stocks and bonds and select from a wide range of mutual funds through open-ended 401(k) brokerage accounts.

**403(b) Plans**

Employees of public educational institutions (and some other public bodies) are entitled to favorable tax treatment on portions of their salaries that they voluntarily forego under tax-sheltered annuity (TSA) plans, more commonly referred to by the section of the IRC that authorizes them – 403(b) plans. The tax treatment of both contribution and investment income for these plans is similar to that for 401(k) plans -- especially so after the introduction of the Economic Growth and Tax Relief Reconciliation Act of 2001.

Subject to certain internal limits and to the same indexed maximums as with 401(k)s, plan contributions through a voluntary salary reduction agreement are excludable from the employee’s current taxable wages, and they grow tax deferred, just as with 401(k) plans. Withdrawals are subject to the same rules as those applicable to 401(k)s.

**457(b) Deferred Compensation Plans**

State and local governments can establish 457(b) deferred compensation plans under which employees voluntarily can set aside portions of their salaries on a before-tax basis, as with 401(k) and 403(b) plans. Limits as to the maximum deferral amounts are the same as those applicable to 401(k) and 403(b) plans, with some exceptions for those within three years of retirement. Investment earnings build on a tax-deferred basis, as with the other plans.

Unlike the other two plans, however, employees may withdraw funds from their 457(b) plans without penalty at any time. Of course, amounts withdrawn are subject to taxation at the employee’s regular income tax rate. Government employees may be eligible for to participate in both 403(b) and 457(b) plans, thus deferring taxation on $31,000 (or $15,000 for each plan) of current income for the year of 2008. Unlike 401(k) plans, employers ordinarily do not match any portion of an employee’s contributions to either 403(b) or 457(b) plans.
Self-employed Pension Plans

Owners of unincorporated businesses – sole proprietorships and partnerships – are considered as self-employed and may establish tax-qualified retirement plans – called Keogh plans after the sponsor of the congressional legislation creating them – under which contributions are tax deductible and earnings on fund balances are tax deferred. Keogh plans are also known as HR10 plans.

A self-employed person can establish and make tax-deductible contributions to a Keogh plan even if he or she also works as an employee and is covered by that employer's tax-qualified retirement plan. The person can also establish an IRA under the same tax rules as other taxpayers. Limitations on contributions depend on the type of Keogh plan, however.

Contributions to a defined benefit plan – meaning that the benefits are defined by the plan documents – are limited to the amount needed eventually to produce an annual pension payment of the lesser of (1) $230,000 or (2) 100 percent of the participant's average earning for the three highest years of earnings. The $230,000 limit applies to 2008 and may be adjusted periodically for inflation.

Contributions to a defined contribution plan – meaning that the contributions are defined by the plan documents – are limited to the lesser of $46,000 or 100 percent of the participant's earned income for the year. The limit applies to 2008 and may be adjusted periodically for inflation.

Keogh plans can be established with insurance companies, banks, securities firms, independent plan administration firms, lawyers, accountants, and any firm that typically provides financial services. Such firms typically offer a standard Keogh plan – called a prototype plan – that can be modified to fit individual circumstances. Customized Keogh plans can be expensive.

Individual Retirement Accounts

Individual retirement accounts (IRAs) are plans adopted by individuals that provide tax-deferred benefits somewhat similar to those available under employer-sponsored plans. Almost anyone with taxable income and younger than age 70 1/2 can set up an IRA, but deductible contributions are restricted for employees covered under qualified plans whose income exceeds specified limits. Investment earnings on all contributions (irrespective of whether they are deductible) accumulate tax free until distributed.

A traditional IRA is one established by an individual to provide retirement income for himself or herself. Any eligible person can make tax-deductible contributions of the lesser of 100 percent of earned income or $5,000 per year ($6,000 if age 50 or more) for year 2008. For 2009 and 2010, the increase in contribution limit is indexed to annual inflation.

To have the entire contribution qualify as tax-deductible in 2008, the individual's adjusted gross income during these years must be $53,000 or less ($85,000 or less for couples filing jointly). For gross income between $53,000 and $63,000 ($85,000 to $105,000 for joint filers), the tax-deductible amount gradually decreases. For incomes greater than $63,000 ($105,000 for joint filers), no portion of contributions are tax deductible.

While contributions are not tax deductible under a Roth IRA, funds build on a tax-free basis and qualified distributions are tax free. Individuals making contributions to a Roth IRA can still make contributions to a deductible IRA. For years 2007 and 2008, Roth IRAs are available to single people with adjusted gross incomes of less than $99,000. Single people with income greater than $99,000 but less than $114,000 may make a reduced contribution. Single persons with income greater than $114,000 cannot make a contribution. For couples filing jointly, the adjusted gross income for a full contribution is $156,000 for 2008; they are eligible for a reduced contribution for income up to $166,000.

Qualified distributions from Roth IRAs may be taken after five years. Additionally, qualified distributions may be made upon attainment of age 59 1/2, death, or disability and for first-time home buyers. IRA contributions are invested in annuities, in bank savings instruments, through mutual fund custodial accounts, and self-directed accounts through stock brokers.

Simplified Employee Pension (SEP) Plans

The hallmark of SEP plans is their simplicity. Any business can establish a plan and reporting requirements to the government are minimal. Such plans are commonly established by sole proprietorships. As defined contribution retirement plans, contributions are tax deductible, accrue on a tax-deferred basis, and are made into each participant's IRA. At the same time, however, the employer can vary contributions from year to year, subject to maximum limits, and need not make any contributions in a given year. If, however, the employer elects to make contributions for any employee, it must make the same percent-of-income contribution for all eligible employees.

For 2007, employers can contribute up to $45,000 or 25 percent of each employee's compensation subject to a maximum considered compensation of $225,000, whichever is less. The dollar figures may be
adjusted periodically for inflation. Withdrawal requirements are similar to those for 401(k) plans, including the 10 percent penalty for withdrawal before age 59 ½. Loans are not permitted. IRS approved prototype plans are available.

Effect of Tax Treatment on Savings

The income tax treatment accorded savings affects the amounts that we need to save for retirement. This is because tax-qualified plans permit taxpayers to defer paying taxes on investment earnings and, often, on the income from which contributions to the plan are made. Rather than paying the taxes now, the government is allowing you to hold the taxes that ultimately will be due.

You get to earn interest on the government’s money, rather than the government earning the interest. In other words, under tax-qualified retirement plans, the government effectively makes an interest-free loan to you. Who wouldn’t want to borrow money at a zero interest rate and invest it? True, you ultimately must repay the principal, but you get to keep all of the interest earned. Because of this interest-free loan by the government, the amount saved each year to build to a set sum of money at retirement can be less with a qualified than with a non-qualified plan, once we adjust for the tax differences.

Employer-Sponsored Retirement Benefits

About one-half of all U.S. employees are covered by employer-sponsored retirement plans. The great majority of such plans meet the requirements of the IRC and, therefore, enjoy favorable tax treatment, as discussed later. The larger the employer, the greater the likelihood that a plan is offered. Of the approximately 41 million workers employed by small companies (firms with employees between 1 and 99) in 2004, in contrast, more than two-thirds do not have access to such plans.²⁷

In their retirement planning, individuals should first recognize that employer-sponsored plans are marketed more to employers than they are to the employees/beneficiaries. As a result, the employer’s needs are given priority in terms of the benefits and financing. Although the needs of the average employee are certainly considered, the decision-making process does not always give adequate consideration to the perspectives of the covered employees.

Every pension plan must define a normal retirement age, which is the youngest age for which an employee is entitled to retire with full benefits. This cannot be later than age 65 (or the fifth anniversary of plan participation if later). Virtually all pension plans also make provision for early or deferred retirement, subject to certain conditions.

Benefit Approaches

Traditionally, retirement plans have been classified as being either defined benefit or defined contribution. Under a defined-benefit plan, a fixed benefit payable at retirement is developed by a formula. A defined-contribution plan establishes a rate or amount of annual contributions to be made either by the employer alone or by the employee and employer jointly, such that the benefit provided at retirement varies depending on the age, contribution amounts, investment return earned, and length of time covered under the plan. Thus, in defined-benefit formulas, the benefit is fixed and the contribution varies, whereas in a defined-contribution approach, the employer’s contribution is fixed by formula and the benefit varies.

A defined-contribution plan provides an individual account for each participant and bases the employee’s benefits solely on the amount contributed to the participant’s account and on any expense, investment return, and forfeitures allowed to the participant’s account. Since the definition of the basis for contribution is completely flexible, several qualified plans have evolved with the dual objectives of provision of retirement income and deferral of current taxable income, as discussed below. When a participant becomes eligible to receive a benefit, his or her benefit equals a lump-sum distribution or an annuity equal to the amount that can be provided by the fund balance.

Defined-benefit formulas may be a flat amount, or they may be related to earnings, to service, or to a combination of earnings and service. Thus, a plan’s formula may provide a retirement benefit of $300 a month regardless of earnings or service, 30 percent of final average pay, 1.5 percent of annual pay for each year of credited service, or other formulas.

A pension plan may be required to distribute benefits in the form of a joint and survivor annuity or a single-life annuity. Other common methods of distribution for defined-contribution plans are payments as an annuity certain for a fixed term (i.e., monthly for ten years) or for life with a period certain, or in a lump sum. Lump-sum distributions can be rolled over into an IRA or another qualified plan, to defer income taxes.

²⁷ U.S. Census Bureau, “Employment Size of Firms” Table 2a (Employment Size of Employer and Nonemployer Firms, 2004) [http://www.census.gov/epcd/www/smallbus.html].
sum distributions made before age 59½ are generally subject to a 10 percent excise tax unless they are rolled over. In a defined-benefit plan, all forms of distribution other than a qualified joint and survivor annuity require spousal consent.

Limits are imposed on maximum benefit that can be provided under a defined-benefit plan and on the contributions under a defined-contribution plan. In addition, no qualified plan may take into account compensation in excess of $200,000 (for 2002) in determining benefits or contributions. This $200,000 limit is subject to cost-of-living adjustments in $5,000 increments.

Vesting

Pension plans may be contributory or noncontributory. Under a contributory plan, the employee provides part of the funds necessary to purchase his or her benefits, with the employer assuming the remaining cost. Under a noncontributory plan, the employer bears the total cost of the program.

Employees always have the right to recover any contributions with interest that they make to an employer-sponsored retirement plan if they terminate their employment. However, employees do not necessarily have such rights in the contributions of employers made on behalf of employees. Such rights are defined by the plan’s vesting schedule. Vesting refers to an employee’s rights to employer contributions.

The vesting schedule is exceptionally important, especially for employees who might change jobs frequently. Employers may grant immediate vesting, but, more commonly, vesting is deferred until certain service requirements are met. Benefits must be fully vested at normal retirement age and also must meet one of two minimum standards: (1) complete vesting of all accrued benefits after five years of recognized service or (2) a so-called three-to-seven-year standard under which accrued benefits must be at least 20 percent vested after three years of recognized service, and an additional 20 percent each year during the following four years.

Nonqualified Retirement Plans

Highly compensated employees often are entitled to proportionately lower Social Security and employer-sponsored retirement benefits than are other workers. Also, many owners of small businesses do not offer extensive retirement benefits to their rank-and-file employees, but they would like to provide for themselves, for their families, and often for particularly valuable employees. These facts have led increasing numbers of businesses to offer special retirement benefits either instead of or as a supplement to a qualified retirement plan. The objective is to attract and retain talented employees by rewarding them in special ways and/or to provide benefits for the firm owners.

These plans are typically nonqualified, meaning that the employer makes no effort to meet the qualification requirements under the IRC or the Employee Retirement Income Security Act (ERISA) for tax-favored treatment of the plan costs or benefits. A qualified plan must meet certain nondiscrimination and a host of other requirements.

Government Retirement Benefits

The Social Security program, as noted earlier, provides substantial retirement income benefits for lower income workers and a floor of benefits for greater than 90 percent of retirees. As with qualification for survivor benefits discussed in the previous chapter, Social Security retirement benefits are based on the insured worker’s primary insurance amount (PIA). Retirement benefits are available to fully insured workers only.

The fully insured worker’s monthly retirement benefit is in the form of a pure life annuity and carries the marvelous title old-age insurance benefit. It equals 100 percent of the worker’s PIA for retirement at the normal retirement age (NRA) which is 65 until the year 2003. It slowly increases then until it is 67 for those born after 1959.28

The spouse of a retired worker is entitled to a retirement benefit (wife’s/husband’s benefit) equal to 50 percent of the worker’s PIA if he or she is at the NRA or older at the time of claim.29 This benefit is payable,
regardless of age, if the spouse has under his or her care a dependent and unmarried child of the worker under age 16, or if the child has been disabled since before age 22.

Finally, each unmarried child under 18 (or under 19 if the child is attending a primary or secondary educational institution on a full-time basis) or disabled before age 22 is entitled to a benefit (child's benefit) equal to 50 percent of the worker's PIA. The total benefits payable to a retired individual and his or her family members are subject to the overall family maximums.

Debate continues about the long-term viability of the Social Security system, with recent estimates suggesting that the Trust Fund will be fully depleted by the year 2041 if no action is taken to add to it or reduce benefits. Irrespective of the degree of faith one has in the level of future Social Security retirement benefits, it is wise periodically to request updated information on the likely benefit level that would be available on retirement. The needed information can be requested from a local Social Security office or through the Social Security Administration's web site [www.ssa.gov).

Post-Retirement Employment

More than two-thirds of today's workers report that they intend to work for pay during their retirement years. In contrast, less than one-third of today's retirees report working for pay since retirement. Certainly, the concept of gradual retirement continues to gain acceptance, especially as most retirees enjoy relatively good health, and prospects are bright for tomorrow's retirees to be even healthier. As the average number of years in retirement grows, people seek ways to remain active, involved, and stimulated, of which voluntary work and employment are the most prevalent.

When we couple the above observations with the beliefs that (1) government-provided retirement benefits can be expected to be relatively less generous in the future than they have been in the past and (2) employer-sponsored retirement benefits are unlikely to provide relatively more generous benefits in the future, it seems that post-retirement employment (and personal savings) should receive greater attention in retirement planning. At the same time, however, we should recognize that – even with impressive advances in retiree health – meaningful proportions of retirees will be unable to work for pay. The aging process takes its toll on our physical and mental health. Thus, a personal retirement plan that relies heavily on post-retirement earnings as a source of retirement financing could prove disastrous. Moreover, although the current and likely future employment situation might suggest that an ample supply of post-retirement jobs ought to be available, external economic and political events may prove otherwise.

Intergenerational Transfers

Intergenerational transfers are any flows of resources between different generations of the same family. Thus, they encompass flows from parents to children and vice versa. Intergenerational transfers occur in one or more of three “currencies:”

- Space – usually in the form of co-residence;
- Time – usually in the form of services (e.g., assistance with the activities of daily living); and
- Financial – in the form of money or goods.

In many families, the value of such intergenerational transfers exceeds the value of retirement income from former employers, government, and personal initiative. The currencies of space and time account for the greatest value of such transfers. Financial transfers are not presently very large but are destined to grow in importance as the baby boom generation inherits its parents' substantial wealth (estimated to be between $12 and $18 trillion), then later passes much of that wealth plus their own acquired wealth (estimated to be as much as $100 trillion) to their children.

This much-discussed “greatest intergenerational transfer in history,” however, will be highly skewed in favor of the wealthy. Only an estimated 7 percent of estates over the next half-century will exceed $1.0 million (in constant 1998 dollars). Most of us, therefore, are unlikely to inherit great sums. This statement is even more likely true when we recognize that our parents’ wealth will be split among our siblings, charities, and, of course, the government (in the form of estate taxes).

Perhaps of greater importance is that we usually do not know precisely when we will receive an inheritance. With more than one-in-four individuals living past age 90, many heirs will themselves be old when they finally receive an inheritance – too late to help cover much of their retirement income needs. Moreover, if the lifetime giving habits of the present older generation is an accurate representation of the likely gifting habits of future older generations, most of us cannot count on our parents making lavish financial gifts to us during their lifetimes. As discussed earlier, the psychological need to maintain control

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30 Social Welfare Research Institute, Boston College.
(and, therefore, keep our wealth) is strong. It is for these reasons that intergenerational transfers should not be relied upon by most of us as important sources of retirement financing.

DISCUSSION QUESTIONS

1. Explain why it would not be uncommon to find retirees who, by all objective measures, have ample retirement income and wealth, nonetheless, feel anxiety about the adequacy of their resources.

2. A fellow student observes to you: “having a tax deduction for contributions to retirement savings is no big deal. All it does is to postpone taxes.”
   a. Is the second part of her statement accurate? Explain.
   b. Is the first part of her statement accurate? Explain.

3. Assume that you are a financial planner offering advice to several different clients and that each has requested your opinions about what types of annuities, if any, they should buy. What are your recommendations for each of the following situations? Justify your analysis in each instance.
   a. A 73-year-old widower, in good health, is concerned about outliving his resources. He has $760,000 in bank savings accounts, certificates of deposit, and three-month Treasury bills. He owns his house free of any mortgage loan. He has no children.
   b. How, if at all, would your analysis to part (a) change if the widower were in poor health?
   c. A 26-year-old husband and wife, with two children, want to begin a saving plan for their retirement. The total family income is $65,000 this year. Their employers offer 401(k) plans, but they do not now contribute to them.
   d. How, if at all, would your analysis in part (c) change if the husband and wife were earning $200,000 per year and had utilized fully all of their employment-based alternatives for tax-preferred retirement savings?

4. Your friend says: “why should I save for retirement? I’m sure that the combination of Social Security and retirement benefits from my employer will provide me with an adequate retirement income. Also, I plan to work until I am at least 75, plus I will inherit money from my parents.” What cautions might you raise for your friend’s consideration?