Personal Financial Planning for Accountants

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Preface

Personal Financial Planning for Accountants is a comprehensive course on personal finance. What is more important to the "average person"' than making sure their finances are secure proper planning and money management? This course includes all the major areas in personal financial planning—planning your personal finances, managing your personal finances, making your purchase decisions, insuring your resources, investing tour financial resources, and controlling your financial future. Topics covered include time value calculations, budgeting, career planning, banking, insurance, home buying, consumer credits and money management, investment planning, retirement planning, and estate planning. *Personal Financial Planning for Accountants* has text discussion and numerous examples. To clarify and supplement the discussion in each chapter, we will make use of charts, tables, illustrations, exhibits, and checklists.

Field of Study	Administrative Practice
Level of Knowledge	Overview
Prerequisite	Basic Math
Advanced Preparation	None

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Chapter 1:

What You Should Know About Financial Planning

Learning Objectives

After reading this chapter you will be able to:

- Define the personal financial planning process.
- List the objectives and key areas of personal financial planning.
- Understand how the stages in life affect financial planning.
- Recognize how inflation and other economic factors affect financial planning

Financial planning is the process of meeting your life goals through the proper management of your finances. Life goals can include buying a home, saving for your child's education or planning for retirement. Financial planning is the way to arrive at solutions to your financial concerns and problems and to take advantage of your earning years to become financially independent. It involves implementation of total, coordinated plans for the achievement of overall personal objectives. Financial planning can start at any age, but the sooner the better. You may want to have substantial assets during midlife to buy a business or just to enjoy yourself.

You should define your financial goals and establish plans to accomplish them, which may involve some sacrifices. You should learn how to manage your own money including how to save and invest so that at retirement you will have adequate funds. Even with a moderate level of income, you can build substantial wealth by exercising discipline in your financial affairs.

The Benefits of Financial Planning

Financial planning provides direction and meaning to your financial decisions. It allows you to understand how each financial decision you make affects other areas of your finances. For example, buying a particular investment product might help you pay off your mortgage faster or it might delay your retirement significantly. By viewing each financial decision as part of a whole, you can consider its short and long-term effects on your life goals. You can also adapt more easily to life changes and feel more secure that your goals are on track.

How does personal financial planning help you?

Personal financial planning helps you to:

- Obtain what you really want through each life cycle.
- Preserve assets.
- Use credit prudently.
- Exercise good risk management including establishing risk tolerance for investing.
- Provide adequate insurance protection. Protection against personal risk is needed for death, disability, income loss, medical care, property and liability, and unemployment.
- Increase your wealth.
- Control costs.

What are the objectives of personal financial planning?

The goals of personal financial planning include: preserve financial security, have a program to meet financial requirements, evaluate and select available options, manage risk effectively, take care of records, and avoid areas where impending legislation threatens profitability or tax treatment of the investment. Certain goals may have to be modified because of changing times.

The key areas in personal financial planning

The major areas of personal financial planning include

- *Proper insurance coverage to protect against personal risk such as death, disability, and losses*. For example, adequate life insurance is needed for dependents. Insurance coverage should be modified periodically, as necessary.
- *Capital accumulation*. There should be a regular savings and investment program. A balanced investment portfolio should exist (for example, certificates of deposit, equity securities, fixed-income securities) taking into account financial goals and risk tolerance.

- *Investment and property management*. You should manage your assets for high return without undue risk.
- *Tax planning*. Tax saving techniques should be employed.
- *Debt and credit management*. You should not be overextended.
- *Planning for retirement*. Adequate retirement income should be provided for.
- *Estate planning*. Proper estate planning is needed to assure assets are transferred to beneficiaries, as desired. Some assets may be arranged in such a way as to provide your heirs protection from creditors' claims in bankruptcy. Examples are spendthrift provisions in life insurance settlement options and personal trust agreements.

The steps in personal financial planning

As Exhibit 1 shows, personal financial planning process involves the following steps:

Step 1: Determine your current financial situation.

In this first step of the financial planning process, you must determine your current financial situation with regard to income, savings, living expenses, and debts. You need to obtain needed information (for example, current investments, provisions in insurance policies, retirement benefits, tax law provisions).The personal financial statements discussed in Chapter 2 will provide the information you need to match your goals with your current income and your potential earning power.

Step 2: Set goals.

Specific financial goals are vital to financial planning. Your financial goals can range from spending all of your current income to developing an extensive savings and investment program for your future financial security. The goals you choose should be based on your current situation, your values, and your financial situation. Further, you should determine desired risk level. The best way to consider risk is to gather information based on your own and others' experiences and to use financial planning sources. The goals can be short-, intermediate-, and long-term. *Short-term goals* are goals to be achieved within the next year or so, such as saving for a vacation or paying off small debts. *Intermediate goals* have a time frame of two to five years. *Long-term goals* involve financial plans that are more than five years off, such as retirement savings, money for children's college education, or the purchase of a vacation home.

Goal frequency is another ingredient in the financial planning process. Some goals, such as vacations or money for gifts, may be set annually. Other goals, such as a college education, a car, or a house, occur less frequently. Your financial goals should have the following characteristics:

- *Goals should be realistic*. Goals should be based on your income and life situation. For example, it may not be realistic to buy a house if you are a full-time student.
- *Financial goals should be stated in specific, measurable terms*. Defining exactly what your goals are will allow you to create a plan that is designed to achieve them. For example, the goal of

"putting $20,000 in an investment account within four years" is a less ambiguous guide to planning than the goal of "putting money into an investment account."

- *Financial goals should have a time frame*. A time frame helps you measure your progress toward your financial goals. In the previous example, the goal is to be achieved in four years. Dividing your clear goal into manageable pieces will allow you to better achieve your financial objective.

Step 3: Identify alternative courses of action

Identifying alternatives is critical for making good decisions. Although many external factors will influence the available alternatives, your possible courses of action will usually fall into these categories:

- *Keep on the same course of action*. For example, you may determine that the amount you have saved each month is still appropriate.
- *Enhance the current situation*. You may choose to save a larger amount each month.
- *Alter the current situation*. You may decide to buy a money market fund instead of using a regular savings account.
- *Undertake a new course of action*. You may decide to use your monthly budget to pay off credit card debts.

Step 4: Evaluate alternatives, including appraising current financial status.

You need to assess possible courses of action, taking into consideration your life situation and current economic conditions. In the assessment process, you should also look at the consequences and risks associated with each alternative. Every option in life can have positive or negative effects. Various information sources are available to help you assess these possible outcomes. Every decision has a trade-off. For example, a decision to invest in stock may mean you cannot take a vacation. You must understand the effect of each financial decision. Each financial decision you make can affect several other areas of your life. For example, an investment decision may have tax consequences that are harmful to your estate plans. Or a decision about your child's education may affect when and how you meet your retirement goals. Remember that all of your financial decisions are interrelated.

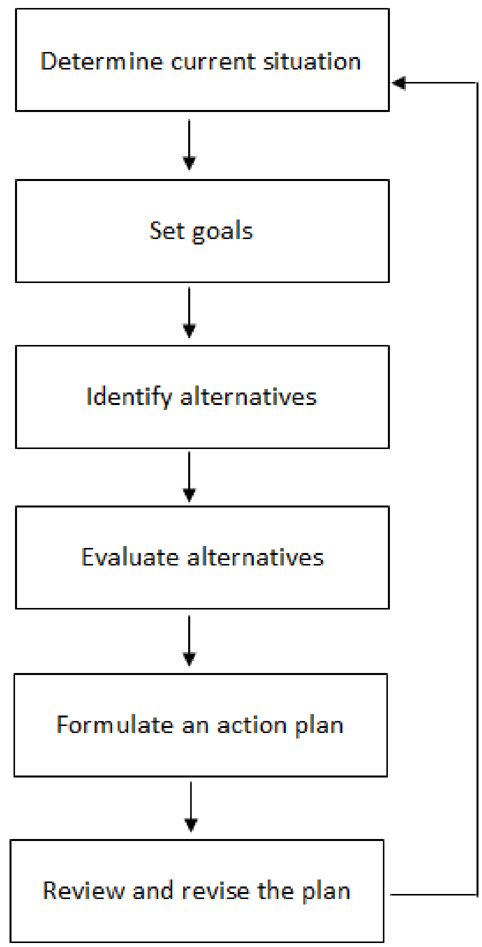
Step 5: Formulate an action plan to meet goals.

The fifth step of the financial planning process is to develop a plan of action—a blueprint. This requires choosing ways to achieve your goals. For example, you can increase your savings by reducing your spending or by increasing your income through extra time on the job. Don't delay your financial planning and implement your plan in accordance with your blueprint.

Step 6: Review your plan periodically and making necessary revisions.

Financial planning is a dynamic and on-going process that does not end when you take a particular action. You need to regularly assess your financial decisions. You should do a complete review of your finances at least once a year. Your goals may change over the years due to changes in your lifestyle or circumstances, such as an inheritance, marriage, birth, house purchase or change of job status. Revisit and revise your financial blueprint as time goes by to reflect these changes so that you stay on track with your long-term goals. Note: External events beyond your control such as inflation or changes in the stock market or interest rates can affect your financial planning results.

Exhibit 1:
Personal financial planning process



Common Mistakes Consumer Make When Approaching Financial Planning

- Don't set measurable financial goals.
- Make a financial decision without understanding its effect on other financial issues.
- Confuse financial planning with investing.
- Neglect to re-evaluate their financial plan periodically.
- Think that financial planning is only for the wealthy.
- Think that financial planning is for when they get older.

- Think that financial planning is the same as retirement planning.
- Wait until a money crisis to begin financial planning.
- Expect unrealistic returns on investments.
- Think that using a financial planner means losing control.
- Believe that financial planning is primarily tax planning.

What are the negative effects of inadequate planning?

The adverse consequences of not planning include inadequate protection if personal catastrophe occurs (for example, death, illness, accident, unemployment); insufficient funds for children's education; inadequate retirement funds; payment of higher taxes than necessary (for example, income tax, estate tax, gift tax); excessive costs to settle the estate; and not meeting lifetime objectives.

Caution: Do not waste financial resources by planning excessively (for example, excessive insurance coverage such as insuring your house for more than it's worth).

Changing Economic Situations and Financial Planning and Decisions

Your personal financial decisions are heavily influenced by economic variables such as inflation, Gross Domestic Product (GDP), retail sales, consumer spending, and higher interest rates. Numerous Websites and newspapers and business periodicals regularly publish current economic statistics. Exhibit 2 provides an overview of some economic barometers and indicators that influence financial decisions. Several are explained below.

Inflation

Inflation is the general rise in prices of consumer goods and services. The federal government measures inflation with four key indices: Consumer Price Index (CPI), Producer Price Index (PPI), GDP Deflator, and Employment Cost Index (ECI). Inflation is most harmful to people who live on fixed incomes. Due to inflation, retired people whose incomes may not change are able to afford smaller amounts of goods and services. Inflation can also adversely affect lenders of money. Unless an adequate interest rate is charged, amounts repaid by borrowers in times of inflation have less buying power than the money they borrowed. If you pay 10 percent interest on a loan and the inflation rate is 12 percent, the dollars you pay the lender have lost buying power. For this reason, interest rates rise in periods of inflation.

Gross Domestic Product (GDP)

GDP measures the value of all goods and services produced by the economy within its boundaries and is the nation's broadest gauge of economic health. GDP is reported as a “real” figure, that is, economic growth minus the impact of inflation.

Retail Sales, Consumer Spending, and Consumer Confidence

The retail sales figure is the estimate of total sales at the retail level. It includes everything from bags of groceries to durable goods such as automobiles. It is used as a measure of future economic conditions. A long slowdown in sales could spell cuts in production. Retail sales are a major concern of analysts because they represent about half of overall consumer spending. Consumer spending, in turn, accounts for about two-thirds of the nation's GDP. Total demand for goods and services in the economy influences employment opportunities and the potential for income. As consumer purchasing increases, the financial resources of current and prospective employees expand. This situation improves the financial condition of many households. In contrast, reduced spending causes unemployment, since staff reduction commonly results from a company's reduced financial resources. A low or decreased level of consumer confidence indicates concern about consumers' employment prospects and their earnings in the months ahead. The Consumer Confidence Index measures consumer optimism and pessimism about general business conditions, jobs, and total family income.

Interest Rates

Interest rates are a major factor to be considered in many financial planning decisions. Simply put, interest rates represent the costs of lending and borrowing. The earnings you receive as a saver or an investor reflect current interest rates as well as a risk premium based on such factors as the term of the loan, expected inflation, and the extent of risk. Risk is also a factor in the interest rates on auto, credit card, or mortgage loans you pay as a borrower. If you have poor credit ratings you pay a higher interest rate. Exhibit 3 summarizes the effect of cutting the discount rate, one of the key interests, on the economy.

Exhibit 2:
Changing Economic Situations and Financial Planning and Decisions

Economic Barometer	Economic Indicators /Sources	What It Gauges	How It Affects Financial Planning and Decisions
Eleven leading economic indicators	Index of Leading Economic Indicators (LEI) http://www.whitehouse.gov/news/fsbr.html	Advance signals about economic health	Economic series of indicators that tends to predict future changes in economic activity for the next six to nine months; especially a sustained rise in LEI implies more jobs and opportunities for personal financial well-being.
Gross Domestic Product (GDP)	GDP, Factory orders, Industrial production, purchasing manager's index www.fedstats.gov/	The total value of goods and services produced within a	The GDP is an indication of a nation's economic health; especially a sustained growth in GDP results in more jobs and opportunities for personal

		country's boundary	financial well-being.
Unemployment	Unemployment rate, Duration of unemployment, Help-wanted index, Initial Jobless claims www.stats.bls.gov	The number of people without jobs who are willing and able to work	People who are unemployed should reduce their spending and living costs; high unemployment hampers consumer spending. An unemployment rate of 8 percent would be indicative of a recession.
Inflation	Consumer Price Index (CPI), Producer Price Index (PPI), GDP Deflator, Employment Cost Index (ECI), Productivity www.stats.bls.gov	The measure of cost of living; the purchasing power of the dollar	With inflation, you are unable to purchase the same amount of goods and services; high consumer prices and inflation are likely to spark high interest rates.
Consumer Spending	Consumer expectations index, Consumer confidence index www.conference-board.com. www.census.gov/econ	The demand for goods and services by the consuming public	Increased consumer spending is likely to create more jobs; high levels of consumer spending and borrowing can also fuel inflation and lead to interest rates
Retail Sales	Retail sales www.bloomberg.com www.census.gov/econ	The estimate of total sales at the retail level.	A measure of future economic conditions: a long slowdown in sales could spell cuts in production and jobs.
Interest Rates	Fed funds, discount, and prime rates; Treasury bill and bond yields www.bloomberg.com	The cost of money; the cost of credit when you borrow; the return on your money when you save or invest	Higher interest rates make buying on credit more costly; investing more attractive, and dampen borrowing; impact mortgage rates.
Money Supply	M1, M2, and M3 www.federalreserve.gov	The dollar available for spending in the economy	Interest rates tend to decline as more people save and invest; but higher savings (lower spending) may also reduce job opportunities.
Housing Starts	Housing starts, Construction spending www.fedstats.gov/	The number of new homes built	Increased home building results in more jobs, higher income, more consumer spending, and overall economic growth

Trade Balance	U.S. Balance of Payments, Value of the dollar www.bloomberg.com	The difference between a country's exports and its imports.	With trade deficit, interest rates may rise and foreign goods and foreign travel will be more expensive

Exhibit 3:
The Effects of Lowering the Discount Rate on Personal Finance

The players:	The Federal Reserve is the nation's central bank. It regulates the flow of money through the economy.
The action:	Discount rate is what the Federal Reserve charges on short-term loans to member banks. When the Fed cuts the discount rate, it means banks can get cash cheaper and thus charge less on loans.
The first effect:	Within a few days, banks are likely to start passing on the discounts by cutting their prime rate, which is what banks charge on loans to their best corporate customers.
Impact:	Businesses are more likely to borrow. Adjustable consumer loans are tied to the prime rate, such as credit card rates. These become cheaper, stimulating spending.
The second effect:	Within a few weeks, rates on mortgage and auto loans drop.
The goal:	To kick start the economy. If lower interest rates cause businesses to start growing again, then laid-off workers get jobs, retailers start selling, and the economy starts to roll again.

Personal Factors to Consider in Financial Planning

Some personal factors to be considered in financial planning include:

- Present income and desired future income.
- Liquidity needs.
- Possible inheritances.
- Standard of living (for example, level of expenses).
- Net worth.
- Age and health. Younger individuals are more concerned with insurance and capital accumulation. Further, younger individuals can take more risks than older ones. Older people are concerned with retirement and estate planning. They look to fixed income. Middle-aged individuals are concerned more with reducing taxes and capital accumulation.
- Investment preferences. If you are risk adverse, you will favor U.S. government securities. If you desire growth, you will select stocks with capital appreciation potential.
- Stability of employment.
- Insurance coverage.
- Family composition. If you are married, you want adequate life insurance to protect your family. If there are small children, education costs (for example, college) are ahead. A childless working couple is free to speculate with investments. A retired couple on a fixed income does not want to take undue risk.
- Personal and/or retirement obligations.
- Sufficiency of estate to satisfy beneficiaries.

The factors causing a change in the personal plan are change in the inflation rate, new tax laws, children, divorce, and illness.

Keeping Records

Filing and record keeping may be boring, but it is an essential part of your personal financial planning program. You must know your family's assets and where vital documents are. The following records should be retained: tax records; sources of income; investment records; ownership records to home and other real estate (for example, deeds, mortgages); ownership records of other major assets (for example, proof of ownership may be needed for fire or theft loss to obtain insurance reimbursement); pictures of property; insurance policies; credit card accounts; notes payable; banking records; pension and profit sharing plan information; health records; and will.

Bills, canceled checks, and other substantiating documentation (for example, purchase and sale of stock confirmations) are needed if there is an IRS or state audit of your tax return.

A simple or complex system of record keeping is used depending upon your needs. For some, checkbook stubs, canceled checks, securities brokers' and bank statements, and sales receipts are enough. Others require a more elaborate system including an income-and-expense ledger, an investment transaction log, and a diary for recording business expenses. Note: expenses under $25 do not require receipts.

What records should be kept in a safe deposit box?

Records to be retained in a safe deposit box include

- *Documents of properties and investments*, such as bonds, real estate deeds, automobile titles and lists of insurance policies, leases, securities certificates, and contracts. Identifying numbers should be clearly presented on these. The supporting documentation should be retained until the investments or properties are sold. Dividend logs may be kept for 1 year.
- *Household inventory* to document insurance claims and tax losses. These should be kept for the life of the item.
- *Personal documents*, such as marriage license, birth certificates, discharge papers, citizenship documentation, adoption papers, and social security record.
- *Copies of wills*. To avoid delays, particularly in states that seal a safe deposit box upon death of the owner (for example, New York) and do not open it until a tax agent arrives, life insurance policies and originals of wills should be kept elsewhere. The executor should retain the original will.

What are some "rules of thumb" for record retention?

Following are some record-retention guidelines:

- *Insurance policies*. Retain current policies only.
- *Large purchases*. Keep bills and canceled checks for major purchases (for example, furniture, major appliances) as long as you own them. They may be needed to substantiate an insurance claim or tax loss,
- *Tax returns*. Retain copies of returns and supporting documents (for example, 1099 forms, W-2 forms, salary-check stubs, and self-employment income records). Tax records should be kept for 7 years.
- *Credit cards*. Keep a current list of cards and their numbers. Have available the telephone number and address of whom to contact if the cards are stolen. You may be able to use a centralized company for all your credit cards.
- *Documentation on valuables*. Bills, canceled checks, and appraisals of such items as jewelry, art, and antiques should be kept until you sell them or for 3 tax years after their sale. You will need proof to substantiate insurance claims, tax losses, or capital gains.
- *Warranties and service contracts*. Current contracts must be kept for servicing to be honored.
- *Loan agreements*. Retain current contracts only.

How Do the Stages of Life Affect Financial Planning?

Your financial plan will vary depending on individual circumstances through life including age. The stages in the life cycle for personal financial planning are:

- *Single-adult*. Planning includes obtaining proper insurance, savings, and paying for career training.
- *Young-married*. Planning involves having children. A larger family requires a house, which involves establishing a credit rating. There is a need to obtain adequate health and life insurance.
- *Beginning-parenthood*. Planning is required to support children and provide for their education.
- *Divorced-parenthood*. If a divorce occurs, one individual may be required to pay alimony and child support. The financial demands are significant since one person may have to support two households.
- *Parenthood with older children*. Planning involves preparing a will and estate planning. A more adequate insurance program may be needed. Excess savings are invested. The early stage of retirement planning is begun.
- *Children move out*. Planning may require moving to smaller living quarters or to be closer to the children. Serious retirement planning is needed.
- *Retirement stage*. Planning involves reviewing insurance and annuity programs. Increased travel may be undertaken.

For example, when you are in your 20s, you should have habits of saving and investing. Try to save 5 percent to 10 percent of gross income. Save to make a down payment on a home. Have an emergency fund of about 6 months' expenses. Develop a favorable credit rating. Buy or improve your home. Invest for long-term growth. Establish a pension fund. Have adequate insurance. Establish an emergency fund. Make up a will.

Personal financial planning for a person in their 30s

Personal financial planning in your 30s involves doing the following:

- Budget and monitor discretionary expenses.
- Engage in tax planning.
- Contribute to a pension fund.
- Save for children’s education.
- Start retirement planning.
- Reevaluate insurance requirements.
- Modify the will as the family status changes.

Personal financial planning for a person in their 40s

If you are in your 40s, do the following:

- Continue providing for children's graduate education.
- Increase personal savings.
- Continue contributing to a pension fund.
- Consider the tax consequences of investments.
- Invest for long-term appreciation.
- Reappraise insurance needs as children get married.
- Review homeowner's insurance.
- Formulate estate planning including gifts and trusts, as needed.

Personal financial planning for a person in their 50s

If you are in your 50s, do the following:

- Increase savings to between 10 and 15 percent of gross income.
- Plan for retirement.
- Be more conservative in investing.
- Hedge against inflation.
- Engage in tax saving strategies.
- Adjust the estate plan, as needed.

Personal financial planning for a person in their 60s or above

When you are in your 60s, you should:

- Review and update the current pension plan.
- Invest to generate stable retirement income.
- Avoid excessive debt.
- Reduce discretionary expenses if income is lacking.
- Assure the adequacy of health insurance.
- Plan for future cash needs.
- Update the estate plan.

Exhibit 4 shows the typical major financial goal in the life cycles.

Exhibit 4
Prime Goals in the Life Cycle

Life Stage and Age	*Major Financial Goal*
Single and under 25	New car
Young married between 25-29	Condominium
Beginning parenthood between 30-34	House
Family security between 35-44	Preserving capital and meeting Insurance needs
Parenthood of older children between 45-54	College education of children
Near retirement between 55-64	Adequacy of pension plan
Retirement from 65 on	Fixed income

The Individual Aspects of Personal Financial Planning

Personal financial planning differs depending upon who you are. For example, the planning aspects are different for an owner of a closely held business, an owner of a professional practice, an executive, and a dual-career couple.

What is important to an owner of a closely held business?

An owner of a closely held business is looking toward retirement at a certain age. He or she wants to arrange financial affairs so that the value of the net assets (assets less liabilities) of the business will fund a secure retirement. In some cases, the owner may want to accumulate a sufficient value in the business to buy a new and different venture. A diversified investment base is a priority for the owner of the closely held business.

What is important to an owner of a professional practice?

An owner of a professional practice is optimistic about future earnings. As a result, there is an emphasis on current consumption. This attitude detracts from long-term financial planning. While the professional typically has personal accumulated wealth, the value of the practice is primarily the result of the professional's personal efforts. Professionals typically have structured investments to shelter income from taxes and have a high amount of leverage. Usually, the professional saves little and borrows. Typically, they do not have a diversified, balanced portfolio. Unfortunately, many professionals are dependent upon their practice as a source of income and do not have appropriate outside investments to provide supplemental income. Professionals should spend less and better manage themselves, such as through preparing budgets. Debts incurred to finance their education or set up the practice should be repaid. Sound self-employed retirement and disability plans should be established. There must also be adequate professional liability insurance.

What is important to dual-career couples?

Dual-career couples are accustomed to a high standard of living based on two incomes. The emphasis is on consumption rather than saving. Usually, there is not substantial accumulated wealth in terms of investments. A home equity may or may not exist. Since the prospects for accumulating wealth are good due to increasing income, the discretionary cash flow will be adequate to accumulate wealth for retirement. The dual-career couple has to be flexible because of the possibility of curtailment or elimination of one of the two incomes. A high priority should be given to a budget and savings plan. The adequacy of employer insurance should be examined.

Considerations in Selecting a Personal Financial Planner

The criteria in selecting a personal financial planner include credentials, compensation arrangements, past performance, timeliness in advice, and ability to communicate properly and answer questions. Sources of personal financial planning include accounting and financial advisory firms, banks, brokerage firms, and insurance companies.

Financial planners come from a variety of backgrounds and therefore may hold a variety of degrees and licenses. Some take specialized training in financial planning and earn credentials such as certified financial planner (CFP) or chartered financial consultant (ChFC). Others may hold degrees or registrations such as attorney (JD), chartered life underwriter (CLU) or certified public accountant (CPA).

To become a CFP, a designation conferred by the Certified Financial Planners Board of Standards (Phone: (303) 830-7500; www.cfp.net), a candidate must take a two-year course. The six parts of the course, each capped by a three-hour test, are the following: introduction to financial planning; risk management (insurance); investments; tax planning and management; retirement planning and employee benefits; and estate planning. The candidate must pass a two-day exam covering more than 100 financial planning topics, three to five years of financial planning work experience is also required. Other financial planning and investment designations are described below.

Chartered Financial Consultant (ChFC): Must have three years of experience in financial services. Must complete a 10-course curriculum that focuses on comprehensive financial planning issues. Awarded by American College in Bryn Mawr, Pa. For information, call the Society of Financial Service Professionals. Phone: (610) 526-2500. Web: www.theamericancollege.edu

Certified Public Accountant (CPA): CPAs must have a bachelor's degree, pass a national exam and continually keep up with changing tax laws. They become the members of the American Institute of Certified Public Accountants. Phone: (888) 777-7077. Web: www.aicpa.org.

Personal Financial Specialist (PFS): Awarded to CPAs who have at least three years of financial planning experience, pass a six-hour financial planning exam and complete 72 hours of continuing education every three years. Must be a member of the American Institute of Certified Public Accountants. Phone: (888) 777-7077. Web: www.aicpa.org.

Chartered Financial Analyst (CFA): The most prestigious designation in financial planning and analysis, it is earned by securities analysts, money managers, and investment advisors who complete a rigorous program and tests on investments and securities. CFAs must pass three tests that require expertise in investing. Emphasis is on financial analysis and portfolio management. Must have a bachelor's degree and three years of experience in the financial sector. Awarded by the CFA Institute: (800) 247-8132. Web: www.cfainstitute.org.

Registered Representative: A stockbroker. Must pass exams administered by the National Association of Securities Dealers. Also must pass any exams required by the state. All registered representatives — including financial planners — who execute, buy or sell orders for mutual funds, stocks, bonds, commodities or other securities for clients for compensation must be licensed by the appropriate state securities agency and registered with the NASD. Phone: (301) 590-6500 Web: www.nasdr.com.

Registered Investment Adviser (RIA): Anyone can become an RIA by registering with the Securities and Exchange Commission, filing a form and paying a fee. An RIA who only manages money in a no-load mutual fund for a percentage of assets is not required to register with the National Association of Securities Dealers or the state. Phone: (800) 289-9999 Web: www.nasdr.com.

Chartered Life Underwriter (CLU): Awarded to life insurance agents. Must complete 10 insurance-related courses. Awarded by American College in Bryn Mawr, Pa. For information, call the Society of Financial Service Professionals. Phone: 888-263-7265. Web: www.theamericancollege.edu

Enrolled Agent (EA): Must pass a two-day tax exam and background check — both administered by the Internal Revenue Service. Or an individual may become an enrolled agent if he or she has worked for the IRS for at least five years in a job where he or she applied and interpreted IRS provisions, codes and regulations. Should be a member of the National Association of Enrolled Agents. Phone: 202-822-NAEA (6232). Web: www.naea.org.

Chartered Mutual Fund Counselor (SM) or CMFC®: This new designation offered by the College of Financial Planning enhances the ability of financial advisors to speak directly to their clients' mutual fund questions and concerns. Phone: (800) 237-9990. Web: www.cffp.edu

Certified Trust & Financial Advisor (CTFA): Estate planning and trusts expertise, found mostly in the banking industry. Web: www.aba.com/ICBCertifications/CTFA.htm.

A financial planner may assist the client in the following ways:

1. Assess the client's financial history, such as tax returns, investments, retirement plans, wills, and insurance policies.
2. Help the client decide on a financial plan, based on his or her personal and financial goals, history, and preferences.
3. Identify financial areas in which the client may need help, such as building up retirement income or improving investment returns.

4. Prepare a financial plan based on the client's individual situation and discuss it thoroughly with him or her in plain English.
5. Help the client implement the financial plan, including referring him or her to specialists such as attorneys, investment counselors, bankers and certified financial planners, if necessary.
6. Review the client's situation and financial plan periodically and suggest changes in the program when needed.

Warning: There are no restrictions on who can call themselves financial planners.

Exhibit 5 provides the areas of expertise and fee structure for personal financial planners.

Exhibit 5
Areas of Expertise and Fee Structure for Personal Financial Planners

	CPA	*Attorney*	*Commission Planner*	*Fee Planner*	*Customer Representative**
Best services provided	Taxes	Taxes and legal	Entire plan	Entire plan	Specialty (e.g., insurance investment)
Compensation based on	Hourly fee	Hourly fee	Commission	Hourly fee	Salary and/or commission

*Includes representatives from financial service companies, brokerage houses, and insurance firms.

How Planners Are Paid

Financial planners make their money in three basic ways:

- Fee-only planners are compensated solely by client fees.
- Commission-only planners usually offer free advice. They earn commissions when a client buys stocks, mutual funds and other products.
- Fee-based planners combine fees with commissions. A financial plan may cost $250 to $2,500 or more, and clients may or may not be expected to buy products that pay the planner a commission.

Assistance in Personal Financial Planning

Various magazines, periodicals, and booklets may be read to aid you in personal financial planning including:Kiplinger's Personal Finance (www.kiplinger.com), Better Homes and Garden (www.bhg.com), Smartmoney (www.smartmoney.com), Fortune (www.fortune.com), Institute of Certified Financial Planners Journal, U.S. Government Consumer Information Center (www.pueblo.gsa.gov).

Personal Financial Planning Software

Software packages exist to aid you in planning. Many packages can conduct detailed analyses of financial data and formulate suitable recommendations. Some software can evaluate "what-if" scenarios to see the effect of alternative courses of action. One of the most popular software packages is Quicken (www.quicken.com).

Personal Financial Planning Websites

There are numerous useful Websites. They include: CNN money (www.money.cnn.com), MSN Money (http://moneycentral.msn.com/home.asp), www.latimes.com/money, www.quicken.com, Motley Fool (www.fool.com), and http://finance.yahoo.com. For example, CNN Money provides free numerous planning tools on line. www.mint.com , a free and secure site where you can set up an anonymous virtual account in minutes by entering brief information about your actual bank, investment and credit card accounts, plus any home loans. Mint.com connects with more than 7,000 financial institutions in the United States, so chances are it includes yours. It can then pull up your complete financial information in one place. You get weekly e-mails summarizing your spending, saving and investments, plus additional alerts if, for example, a credit card bill is due or your bank account balance is running low.

Chapter 1 Review Questions

1. Personal financial planning (PFP) ensures that you safeguard securities. True or False?

2. Major areas in personal financial planning (PFP) do NOT include forecasts of economic activities. True or False?

3. Your financial goals should have the following characteristic(s):

A. Goals should be realistic
B. Financial goals should be stated in qualitative terms
C. Financial goals should have no time frame
D. Goals should be general

Chapter 1 Review Answers

1. Personal financial planning (PFP) ensures that you safeguard securities. True or False

True is incorrect. PFP helps you to: 1) Obtain what you really want through each life cycle; 2) Preserve assets; 3) Use credit prudently; 4) Exercise good risk management including establishing risk tolerance for investing; 5) Provide adequate insurance protection. Protection against personal risk is needed for death, disability, income loss, medical care, property and liability, and unemployment; 6) Increase your wealth; 7) Control costs.

False is correct. Personal financial planning (PFP) helps you preserve assets and enhance return on your securities.

2. Major areas in personal financial planning (PFP) do NOT include forecasts of economic activities. True or False?

True is correct. The major areas of personal financial planning include: 1) Proper insurance coverage to protect against personal risk such as death, disability, and losses; 2) Capital accumulation; 3) Investment and property management; 4) Tax planning; 5) Debt and credit management; 6) Planning for retirement; 7) Estate planning.

False is incorrect. PFP cannot help you to forecast external economic variables such as inflation. Economists are responsible for economic forecasts.

3. Your financial goals should have the following characteristic(s):

A. **Correct.** Your financial goals should have the following characteristics: Goals should be realistic; financial goals should be stated in specific, measurable terms; financial goals should have a time frame. For example, it may not be realistic to buy a house if you are a full-time student.
B. Incorrect. Financial goals should be stated in measurable terms. Defining exactly what your goals are will allow you to create a plan that is designed to achieve them.
C. Incorrect. Financial goals should have a time frame. A time frame helps you measure your progress toward your financial goals.
D. Incorrect. Financial goals should be stated in specific terms. For example, the goal of "putting $20,000 in an investment account within four years" is a less ambiguous guide to planning than the goal of "putting money into an investment account."

Chapter 2:

Time Value Applications

Learning Objectives:

After reading this chapter you will be able to:

- Understand how the time-value of money affects financial decisions.
- Recognize the importance of future value tables.
- Demonstrate how to use different rules in financial decision making.

Like time, money used in one way cannot be used in other ways. Thus, you are constantly making choices among various financial decisions. In making those choices, you must consider the *time value of money*, the increases in an amount of money as a result of interest earned. Saving or investing a dollar instead of spending it today results in a future amount greater than a dollar. Every time you spend, save, invest, or borrow money, you should consider the time value of that money as an opportunity cost. Spending money from your savings account means lost interest earnings; however, what you buy with that money may have a higher priority than those earnings. Borrowing to make a purchase involves the opportunity cost of paying interest on the loan, but your current needs may make this trade-off worthwhile.

In making financial decisions, such as annual loan payments or investment accumulation, you may need to use future value and present value tables that take into account the time value of money. You may want to know how much to invest each year to have a desired balance at retirement. You may desire to calculate the interest rate being charged on an auto loan. You may have to figure out how many years it will be before you can buy a house. These are just a few of the many practical applications that the tables offer.

Time Value of Money

Using Future Value Tables in Decision Making

Future (compound) value of money is important to consider in making investment decisions. You can solve for different unknowns, such as accumulated amount, annual payment, interest rate, and number of periods. Software tools, websites and calculators can easily solve time-value-of-money problems, but it is beneficial to perform some exercises using standard tables as well to help understand the basics of the problems. Afterwards, you can quickly adapt these skills with more sophisticated tools.

Here are some guidelines in using future value tables.

- A future value table is used to determine the future (later) amount of cash flows paid or received.
- The "Future Value of $1" table is used if there are unequal cash flows each period or a lump-sum cash flow.
- The "Future Value of Annuity of $1" table is used if the cash flows are equal and occur at the end of each period.
- If you want to determine a total dollar amount in the future, you have a multiplication problem.
- If you want to calculate an annual payment, interest rate, or number of periods, you have a division problem. In such a case, what you put in the numerator of a fraction determines which table to use. For example, if you put a future value that involves equal year-end payments in the numerator, you have to use a "Future Value of Annuity of $1" table.
- If you are solving for an annual payment, divide the numerator by the factor corresponding to the interest rate i and the number of periods n.
- If you are solving for an interest rate, divide the numerator by the annual payment to get a factor. Then, to find the interest rate, find the factor on the "Future Value of Annuity of $1" table opposite the number of years. The interest rate will be indicated at the top of the column where the factor is located.
- If you are solving for the number of years, divide the numerator by the annual payment to get the factor. Then find the factor in the appropriate interest rate column. The number of years will be indicated in the far left-hand column.

Now let us look at situations in which you may actually solve problems using the future value tables.

The “Future Value of $1” Table

This computation indicates the increased value of a single sum of money over a certain future time period. A determination must be made of what money will be worth tomorrow (see Appendix -Table 1).

EXAMPLE 1

You deposit $5,000 in a mutual fund to be kept for 6 years that will earn 10 percent annual return. The accumulated amount is:

$5,000 x 1.772 = $8,860

EXAMPLE 2

Your current salary is $30,000. You anticipate receiving a 4 percent pay raise each year. Your salary in 10 years will be:

$30,000 x 1.480 = $44,400

EXAMPLE 3

You bought a house today for $150,000 that you plan to sell in 15 years. The expected annual growth rate is 12 percent. The expected value of the house at the end of the fifteenth year is:

$150,000 x 5.474 = $821,100

EXAMPLE 4

You invest $10,000 today in a bank account. It is to be kept in the bank for 5 years at 12 percent annual interest. The accumulated amount equals:

$10,000 x 1.762 = $17,620

If interest is compounded quarterly, the accumulated amount equals:

n = 5 x 4 = 20 (number of quarterly periods)

i = 12%/4 = 3% (quarterly interest rate)

$10,000 x 1.806 = $18,060

The reason that the accumulated amount with quarterly compounding is more than annual compounding is that greater compounding of interest exists.

EXAMPLE 5

You want to have $1,000,000 at the end of 15 years. The interest rate is 8 percent. You have to deposit today the following sum to accomplish your objective:

$$\frac{\$1{,}000{,}000}{3.172} = \$315{,}259$$

EXAMPLE 6

At an interest rate of 12 percent, you want to know how long it will take for your money to double:

$$\frac{\$2}{\$1} = 2$$

n = 6 years (approximate)

EXAMPLE 7

You want to have \$250,000. Your initial deposit is \$30,000 and the interest rate is 12 percent. The number of years it will take to reach your goal is:

$$\frac{\$250{,}000}{\$30{,}000} = 8.333$$

n = 18.5 years (approximately). Factor falls about midway between 18 and 19 years.

EXAMPLE 8

You agree to pay back \$3,000 in 6 years on a \$2,000 loan made today. You are being charged an interest rate of:

$$\frac{\$3{,}000}{\$2{,}000} = 1.5$$

i=7%

EXAMPLE 9

Your salary was \$12,000 in 20X1 and 8 years later it is \$36,700. The compounded annual growth rate is:

$$\frac{\$3.67}{\$1.20} = 3.059$$

Growth rate = 15% (approximate)

The "Future Value of an Annuity of \$1" Table

You can also compute the increased value of equal payments over time (see Appendix -Table 2).

EXAMPLE 10

You plan to put \$20,000 in a savings account earning 8 percent at the end of each year for the next 15 years. The accumulated balance at the end of the fifteenth year is:

$$\$20,000 \times 27.152 = \$543,040$$

EXAMPLE 11

You deposit \$1,000 per month for 2 years. The annual interest rate is 24 percent. Your accumulated balance is:

$$n = 2 \times 12 = 24 \text{ (number of months)}$$

$$i = 24\%/12 = 2\% \text{ (monthly interest rate)}$$

$$\$1,000 \times 30.422 = \$30,422$$

EXAMPLE 12

You want to determine the annual year-end deposit needed to accumulate \$100,000 at the end of 15 years. The interest rate is 12 percent. The annual deposit is:

$$\frac{\$100,000}{37.280} = \$2,682.40$$

EXAMPLE 13

You want to have \$500,000 accumulated in your mutual fund. You make four deposits of \$100,000 per year. The interest rate you must earn is:

The interest rate you must earn is determined below.

Step 1: Get the factor, which is $\frac{\$500,000}{\$100,000} = 5$

Step 2: Refer to Appendix - Table 2 and look across four periods to get a factor closest to 5, which is 4.993 .

Step 3: Look at the interest rate that is the heading for the column 4.993, which is 15 percent.

Step 4: The interest rate is approximately 15 percent.

EXAMPLE 14

You want \$500,000 in the future. The interest rate is 10 percent and the annual payment is \$80,000. The number of years it will take to achieve your goal is:

$$\frac{\$500{,}000}{\$80{,}000} = 6.25$$

n = 5 years (approximately)

The Rule of 72 and the Rule of 69

Suppose that you don't have access to time value of money tables or financial calculator but want to know how long it takes for your money to double. Here is a handy rule, called the rule of 72. Simply divide 72 by the percentage rate you are earning on your investment. That is,

72/r (in percent)

Example 1: Richard bought a piece of property yielding an annual return of 10%. The investment will double in about 7 years.

72/10 = 7.2 years.

The rule of 69, which is very similar to the rule of 72, states that an amount of money invested at r% per period will double in

69/r (in percent) + .35 periods.

Example 2: Using the same data from the previous example,

69/10 + .35 = 6.9 ± .35 = 7.25 years

Note: The rules of 72 and 69 also apply to debts. Your debts can double very quickly with high interest rates, such as those charged on most credit card accounts. So keep the rules handy whether you invest or borrow.

Using Present Value Tables in Decision Making

Present (discount) value of money is considered in personal finance decisions. Different unknowns may be solved for, such as present value amount, annual payment, interest rate, and number of periods. The following are guidelines for using the tables:

- A present value table is used if you want to determine the current amount of receiving or paying future cash flows.
- The "Present Value of $1" table (see Appendix -Table 3) is used if you have unequal cash flows each period or a lump-sum cash flow.
- The "Present Value of Annuity of $1" table (Appendix - Table 4) is used if the cash flows each period are equal.

The “Present Value of $1” Table

Present value is the opposite of compounding. By knowing what something is worth in a later year, you can find out its value today. In effect, you are discounting a future amount to compute its current worth (see Appendix - Table 3).

EXAMPLE 15

You have an opportunity to receive $30,000 four years from now. You earn 12 percent on your investment. The most you should pay for this investment is:

$30,000 x .636 = $19,080

EXAMPLE 16

You are 30 years old and plan to invest in a 25-year, zero-coupon bond yielding 10 percent. Upon retirement at age 60, you want to have accumulated $400,000. The investment needed today to satisfy your goal is:

$400,000 x T3(10%, 25 years) = $400,000 x .0923 = $36,920

EXAMPLE 17

You are thinking of investing $30,000. The interest rate is 10 percent. Your annual net cash inflows from the investment are

Year 1	$ 8,000
Year 2	15,000
Year 3	18,000

The present value of this investment is positive and the investment should be made, as indicated in the following calculations:

Year	Calculation		Net Present Value
0	-$30,000 x	1.000	($30,000)
1	8,000 x	0.909	7,272
2	15,000 x	0.826	12,390
3	18,000 x	0.751	13,518
Present value			$3,180

The "Present Value of an Annuity of $1" Table

This values a series of equal future payments, such as annuities received from Pension plans and insurance policies, in today's dollars. When using this table, all you need to do is multiply the annual cash payment by the factor (see Appendix - Table 4).

EXAMPLE 18

You will receive $10,000 a year for 6 years at 10 percent. The present value is:

$10,000 x 4.355 = $43,550

EXAMPLE 19

The terms of the divorce settlement are that you will receive monthly payments of $600 for 2 years. The discount rate is 24 % per year. Today the settlement is worth:

$600 x T4 (2%, 24 months)= $600 x 18.9139 = $11,348.34

EXAMPLE 20

You are trying to determine the price you are willing to pay for a $1,000 five-year U.S. savings bond paying $50 interest semiannually, which is sold to yield 8 percent. The present value is computed below.

i = 8%/2 = 4%

n = 5 x 2 = 10

Present Value of $1 (Appendix - Table 3) for n = 10, i = 4%:	
$1,000 x 0.676	$676
Present Value of an Annuity of $1 (Appendix -Table 4) for n= 10,i=4%:	
$50 x 8.111	406
	$1,082

EXAMPLE 21

You borrow $200,000 for 5 years at an interest rate of 12 percent. The annual year-end payment on the loan is:

$$\frac{\$200{,}000}{3.605} = \$55{,}479$$

EXAMPLE 22

You take out a $30,000 loan payable monthly over 2 years at 24 percent annual interest. The monthly payment is:

n = 2 x 12 = 24

i= 24/12 = 2%

$$\frac{\$30{,}000}{18.91139} = \$1{,}586$$

EXAMPLE 23

You borrow $300,000 at 12 percent payable at $70,000 a year. The number of years you have to pay off the loan is:

$$\frac{\$300{,}000}{\$70{,}000} = 4.286$$

n = 6 years (approximately)

EXAMPLE 24

You borrow $20,000, to be repaid in 12 monthly payments of $1,891.20. The monthly interest rate is:

$$\frac{\$20{,}000}{\$1{,}891.20} = 10.575$$

i=2%

EXAMPLE 25

You borrow $1,000,000 and agree to make payments of $100,000 per year for 18 years. The interest rate you are paying is:

$$\frac{\$1{,}000{,}000}{\$100{,}000} = 10$$

i= 7 percent (approximately)

EXAMPLE 26

When you retire you want to receive an annuity of $80,000 at the end of each year for 10 years. The interest rate is 8 percent. The amount that must be in your retirement account at the date of retirement is computed below.

$80,000 x 6.710 = $536,800

EXAMPLE 27

You have \$300,000 in your pension plan today. You want to take an annuity for 20 years at an interest rate of 12 percent. The amount you will receive each year is:

$$\frac{\$300{,}000}{7.469} = \$40{,}166$$

EXAMPLE 28

If you buy a car, you have to give a 10 percent down payment on a list price of \$20,000 and finance the balance over three years at an interest rate of 12 percent. The annual payment required on the loan agreement is:

$$\frac{\$20{,}000 - \$2{,}000}{2.402} = \frac{\$18{,}000}{2.402} = \$7{,}494 \text{ (annual payment)}$$

EXAMPLE 29

Consider a bond, maturing in 10 years and having a coupon rate of 6 percent. The par value is \$1,000. Investors consider 10 percent to be an appropriate required rate of return in view of the risk level associated with this bond. The annual interest payment is \$60 (6% x \$1,000). The present value of this bond is:

= \$60(6.145 from Table 4) + \$1,000(0.386 from Table 3)

= \$368.70 + 386.00 = \$754.70

Using financial calculators and computer software

Of course, a faster and simpler way to do time value calculations would be to use financial calculators or the future value and present value function keys in spreadsheet software such as Excel. However, understanding the underlying formulas is useful as a basis of all financial calculations.

Chapter 2 Review Questions

1. On November 1, 2010, a company purchased a new machine that it does not have to pay for until November 1, 2012. The total payment on November 1, 2010 will include both principal and interest. Assuming interest at a 10% rate, the cost of the machine would be the total payment multiplied by what time value of money concept?

A. Present value of annuity of 1.
B. Present value of 1.
C. Future amount of annuity of 1.
D. Future amount of 1.

2. Pole Co. is investing in a machine with a 3-year life. The machine is expected to reduce annual cash operating costs by $30,000 in each of the first 2 years and by $20,000 in year 3. Using a 14% cost of capital, what is the present value of these future savings? Note: The present value of $1 at 14% in period 1 = 0.88; in period 2 = 0.77; in period 3 = 0.68; The present value of an annuity of $1 at 14% in period = 0.88; in period 2 =1.65; and in period 3 = 2.33.

A. $69,600
B. $46,400
C. $63,100
D. $69,500

3. John Watson's uncle recently passed away, and included in the property that he inherited is a bond that pays an 8% coupon, has a face value of $1,000, has 10 years to maturity, and the investors require a rate of return of 10%. Assuming annual coupon payments, what is the value of the bond?

A. $386
B. $491.60
C. $614.50
D. $877.60

4. You borrow $1,000,000 and agree to make payments of $100,000 per year for 18 years. The interest rate you are paying is: (USE TABLE 4 in APPENDIX):

A. -6%

B. 9%

C. 12%

D. 7%

Chapter 2 Review Answers

1. On November 1, 2010, a company purchased a new machine that it does not have to pay for until November 1, 2012. The total payment on November 1, 2010 will include both principal and interest. Assuming interest at a 10% rate, the cost of the machine would be the total payment multiplied by what time value of money concept?

A. Incorrect. The present value of an annuity determines the value today of a series of future payments (not merely one payment).
B. **Correct.** The cost of the machine to the company on November 1, 2010 is the present value of the payment to be made on November 1, 2012. To obtain the present value, i.e., today's price, the future payment is multiplied by the present value of $1 for two periods at 10%.
C. Incorrect. The future value of an annuity determines the amount available at a specified time in the future after a series of deposits (investments).
D. Incorrect. The future value of a dollar determines how much will be available at a specified time in the future based on the single investment (deposit) today.

2. Pole Co. is investing in a machine with a 3-year life. The machine is expected to reduce annual cash operating costs by $30,000 in each of the first 2 years and by $20,000 in year 3. Using a 14% cost of capital, what is the present value of these future savings?

A. Incorrect. $69,600 equals the present value of a 3-year annuity for $30,000 at 14%: $30,000 x 2.32 (from Table 4)
B. Incorrect. $46,400 equals the present value of a 3-year annuity for $ 20,000 at 14%: $20,000 x 2.32 (from Table 4)
C. **Correct.** The cost reductions constitute 3 amounts: $30,000, $30,000, and $20,000. Using the present value of $1 table (Table 3), we get $62,900 as follows: $30,000(0.88) + $30,000(0.77) + $20,000(0.68) = $26,400 + 23,100 + 13,600 = $63,100
D. Incorrect. $69,500 equals the present value of a 2-year annuity for $30,000, plus $20,000: ($30,000 x 1.65) + $20,000.

3. John Watson's uncle recently passed away, and included in the property that he inherited is a bond that pays an 8% coupon, has a face value of $1,000, has 10 years to maturity, and the investors require a rate of return of 10%. Assuming annual coupon payments, what is the value of the bond?

A. Incorrect. $386 results from only taking into account the present value of the lump sum principal of the bond; $1,000 x 0.386 (From Table 3) = $386
B. Incorrect. $491.60 results from only taking into account the present value of the annuity of coupon payments: $80 x 6.145 (From Table 4) = $491.60, where $80 = $1,000 x 8%.
C. Incorrect. $614.50 results from incorrectly multiplying the bond's $1,000 face value by the annuity interest factor, 6.145 (from Table 4).
D. **Correct.** The value of the bond is equal to the sum of (1) the product of the coupon payments and the correct annuity factor (Table 4), and (2) the product of the face value of the bond and the correct present value factor (Table 3). Because the bond has 10 periods to maturity and the effective interest rate is 10%, the Table 3 factor for the present value of the lump sum is 0.386, and the Table 4 factor for the present value of the annuity is 6.145. Therefore, multiplying the $80 annual interest payment by its interest factor of 6.145 equals a present value of $491.60. Also, the present value of the lump sum is equal to the $1,000 face value of the bond multiplied by 0.386, which equals $386.00. Thus, the total value of the bond is the sum of these two present values, or $877.60.

4. You borrow $1,000,000 and agree to make payments of $100,000 per year for 18 years. The interest rate you are paying is: (USE TABLE 4 in APPENDIX):

A. Incorrect. The interest rate cannot be a negative number.
B. Incorrect. The divisor ($1,000,000/$100,000) = 10 gives you a 7% rate, not 9%.
C. Incorrect. The divisor ($1,000,000/$100,000) = 10 gives you a 7% rate, not 12%.
D. **Correct.** The interest rate you are paying is : ($1,000,000/$100,000) = 10 , so i = 7 percent (approximate)

Chapter 3:

Personal Financial Statements and Budgeting

Learning Objectives

After reading this chapter you will be able to:

- Determine how much you are worth.
- Identify balance sheet (net worth statement) and cash flow statement.
- List the reasons for budgeting.
- Demonstrate how to develop the key items in a budget.

What is your net worth? You will learn how to determine it in this chapter. The greater your net worth, the better standard of living you will enjoy and the earlier you can retire. A personal financial statement will help you in evaluating your money habits.

A personal financial statement is like a map: It shows present financial status, reveals where money is going, and guides you in later financial decisions. A personal financial statement may be prepared for an individual, a husband and a wife, or a family. Also helpful in planning finances is the preparation of a budget showing the sources of income and types of expenditures.

Personal financial statements are financial statements of individuals or families prepared to plan their financial affairs in general or for a specific purpose, e.g., tax or retirement planning, obtaining credit, or public disclosure by a public official. Personal financial statements include a balance sheet and a cash flow statement.

Developing a Financial Statement

How Much Are You Worth?

Assets (what you own having a market value) and liabilities (what you owe) are shown in a personal balance sheet, also called *net worth* statement. An example of an asset is cash while an example of a liability is loans payable. By preparing a personal balance sheet, you can determine how much you are worth. Your net worth is equal to the difference between assets and liabilities. The balance sheet shows the status of your financial position at a certain point in time and whether any changes are needed. It may help you answer many questions, such as whether to obtain additional financing, how much insurance you need, what your potential estate is for planning purposes, whether you can buy a house, how much money is available for investments, when you can retire, and what funds are available for the education of your children.

- Try to maximize your net worth by building up assets and controlling liabilities. Be careful how you finance assets. For example, avoid financing long-term assets with short-term debt.
- Use the same criterion every year as a basis for valuing assets and liabilities. For example, if you value your house using recent area sales, do the same next year.
- You can compare your personal balance sheet with those of others in your age group or professional category to see how you stack up against your peers.

An abbreviated personal balance sheet would include the following:

Assets

- Liquid assets (e.g., cash and marketable securities)
- Loan assets (e.g., certificates of deposit, bonds)
- Investment assets (e.g., stocks, stock mutual funds, real estate, gold)
- Personal assets (e.g., auto, jewelry)
- Deferred assets (e.g., pension plan, insurance annuities, deferred compensation, trust, and inheritances)

Liabilities

- Short-term debt (e.g., credit cards)
- Intermediate-term debt (e.g., notes, loans)
- Long-term debt (e.g., mortgage)

Net worth = Assets - Liabilities

Your Assets

Assets should be listed in the order of liquidity at current market values. The most liquid assets are cash and marketable securities. Liquid assets can be sold quickly without loss of principal (for example, money market fund). Assets may be short term, intermediate term, or long term, depending on the maturity date.

Some assets have appreciation potential (for example, real estate, stocks). Personal assets often depreciate (for example, automobile, furniture). Deferred assets (for example, retirement plans, trusts, and inheritances) are inaccessible and will be reduced by taxes. Investment assets, such as stocks and bonds, provide you with additional income or increase your net worth.

If assets are jointly owned, only your interest as beneficial owner should be included. A listing of assets may take the following form:

Assets	*Description*	*Carrying Value*	*Percent of Total Assets*

How should assets be valued? There are certain guidelines used to derive a value, depending on the type of asset. Your assets might include:

- Amount of money in bank savings and checking accounts
- Cash surrender value of life insurance
- United States savings bonds at current market price
- Amount you could withdraw today from your profit sharing and retirement program
- Annuities at accumulated current value
- Market value of stocks and bonds (for example, quoted market price on the exchange, bid price for an over-the-counter security)
- Net asset value of mutual fund shares
- Market value of other investments (for example, mortgages given to others)
- Current offering price for unit trusts
- Market value of real estate owned, including your house
- Price you could receive for your car or boat (for example, trade-in value)
- Market value of household items (for example, furniture, appliances) determined by what you could get for them if you sold them. (Rule of thumb: Value household items at 5 percent of the value of the home.)
- Market value of personal items (for example, jewelry, clothing). (Rule of thumb: Jewelry can be valued at 30 percent of the purchase price.)
- Appraised value for collectibles
- Price to be obtained if you sold your investment in an unincorporated business
- Receivables due to you by others

EXAMPLE 1

> You agree to give a mortgage on the house you are selling. You will receive $10,000 each year for 10 years. The interest rate is 10 percent. The present value of the stream of mortgage payments is determined using Appendix -Table 4, "Present Value of Annuity of $1," as follows:
>
> $10,000 x 6.145 = $61,450

Note: Business interests that represent a large part of total assets should be shown separately from other investments. Limited business activities not conducted as a separate business entity (such as investment in real estate and related mortgages) should be presented separately.

Questions You Should Ask About Your Assets

- Are most assets concentrated in one category? (This is not desirable since it lacks diversification.)
- Which of the assets are not liquid, and what do they amount to?
- What is the balance between liquid and nonliquid investments?
- Are your investments resulting in tax benefits or problems?
- What is the fair market value of your assets and how does that differ from your initial cost and book value (initial cost less accumulated depreciation)?
- Which assets are most risky?
- What amount of your assets can be used to meet impending obligations?

If the market values of your assets do not increase at the rate of inflation, your "real" net worth will experience a decline. In order to guard against a decline in net worth, the assets you have must appreciate to at least equal the inflation rate.

Your Liabilities

What about what you owe? Liabilities should be shown at estimated current amounts by order of maturity. Categorize liabilities by final payment date. Bills due within 1 year (for example, credit cards) are short-term debt, loans due between 1 to 5 years (for example, auto and consumer loans) are intermediate-term debt, and debts due in more than 5 years (for example, mortgage obligations) are long-term debt.

Liabilities include:

- Amounts owed on the mortgage on your house
- Amounts owed for taxes that have not been withheld
- Loans

Questions To Ask Yourself about Your Debt

- Are you debt averse or prone?
- Which assets are being financed by debt?
- What is the interest rate on the debt?
- What is the maturity of debt and repayment schedule?
- What are the sources of repaying the debt (for example, salary, taking out new loans to pay off old loans, selling assets)?
- What has been the trend in debt position?

Income taxes should be estimated on your income. Disclosure should be made of the methods and assumptions used in estimating income taxes.

Exhibit 1 shows an illustrative balance sheet.

Exhibit 1
Sample balance sheet
MR. JACK SMITH
DECEMBER 31, 20XY

ASSETS				
Liquid				
	Cash	$4,000		
	Money market fund	25,000		
	Marketable securities	30,000		
	Mutual fund	14,000		
	Cash surrender value of life insurance	6,000		
	Total liquid assets		$79,000	
Nonliquid				
	Long-term investments	$50,000		
	Real estate	150,000		
	Automobile	10,000		
	Personal property	25,000		
	Retirement funds	40,000		
	Total nonliquid assets		275,000	
Total assets				354,000

LIABILITIES				
Short-term				
	Accounts and bills due	$1,000		
	Credit card	2,500		
	Total short-term liabilities		$3,500	
Long-term				
	Mortgage payable	$80,000		
	Auto loan	4,000		
	Bank loan	3,000		
	Total long-term liabilities		87,000	
Total liabilities				90,500
NET WORTH				$263,500

EXAMPLE 2

You bought a house for $125,000 that now has a fair market value of $200,000. Your mortgage loan balance is $60,000. Your equity in the house is:

$200,000 - $60,000 = $140,000

Personal financial statements should disclose the following:

- Major methods of determining the current values of assets and current amounts of liabilities
- Nature of joint ownership of assets, if any
- Identification of significant investments in particular companies and/or industries
- For a closely held business, name of the company, the percent owned, and nature of business
- Face value of life insurance
- Maturities, interest rates, collateral, and other pertinent information with regard to debt

Your debt as a percentage of your total assets should generally be less than 50 percent. If, however, your job position is unstable, the debt percentage should be lower, approximating no more than 25 percent.

Commitments and Contingencies

You must also consider any commitments and contingencies that may exist. Examples of commitments and contingencies are cosigning loans, guaranteeing of a family member's debt, and financial commitments made to a relative or third party (for example, a promise to pay for the cost of a home to a daughter when she gets married).

Although commitments and contingencies are not presently reported as liabilities on your balance sheet, they represent potential obligations that have to be thought about and considered in appraising your financial status.

Personal Cash Flow Statement – Your Net Savings

Net savings equals total income less total expenses. You can prepare a cash flow statement showing your income and expenses. This reveals your economic health and indicates if there is excess discretionary income to save. Looking at the relationship between expenses and income may give you ideas on ways to readjust expenses.

Income sources have to be considered to determine future stability and recurrence possibilities. Potential for growth in income may also be revealed. Some sources of income are salaries, interest and dividends, gifts, and pensions. Living expenses are also itemized to see if any category is unusually high, and why. Are your spending habits excessive, and in what areas?

The amount you save depends on the importance of savings in your financial plan and your income level. As your income goes up, the percentage of income saved also increases. This is because at higher incomes many expenses (for example, food) do not increase at the same pace with the income. Hence, it becomes easier to save.

In general, families save about 4 percent of disposable income.

Some Expense Considerations

Managing expenses well has a lot to do with how much you know about your expenses. Therefore, you need answers to the following questions:

- Which expenses are fixed (inflexible) and which are variable (flexible)? Fixed expenses are the same each month (for example, insurance) and are typically provided by written agreement. Since fixed expenses are inflexible, you have very little control over them in the short run. Variable (discretionary) expenses may fluctuate each month (for example, transportation, food). Because variable expenses are flexible you have some control over them in the short run.
- What amount of each expense is discretionary?
- Which expenses are excessive, based on your goals?
- Which expenses can be eliminated if costs have to be cut?
- Recurring expenses (for example, rent) may not be easily reduced. Nonrecurring expenses (for example, entertainment and recreation) may be reduced, if necessary.

Recommendation: Use an Expense Record Book, spreadsheet or software application to record expenses. A loose-leaf binder may suffice.

An abbreviated income statement should include the following elements:

Income

- Fully taxable income (for example, salaries, interest, dividends, gains on sale of securities)
- Tax-sheltered income (for example, social security benefits)
- Tax-exempt bond interest
- Retirement plan earnings
- Disability benefits
- Gifts and inheritances

Expenses

- Recurring expenses (for example, mortgage interest, rent, telephone, electric, insurance)
- Nonrecurring expenses (for example, food, repairs, transportation, recreation, education, clothing)
- Taxes and tax-sheltered expenses (for example, taxes, losses on sale of securities, business expenses, health insurance, medical expenses, alimony, donation, child-care costs, home improvements)

Net savings = Total income - Total expenses

A sample income statement is given in Exhibit 2.

Exhibit 2
Sample income statement
MR. AND MRS. TOM JONES
FOR THE YEAR ENDING DECEMBER 31, 20XY

INCOME	
Salary, commission, bonus	$75,000
Self-employment income (net)	20,000

Interest	2,000	
Dividends	4,000	
Gain on sale of securities	4,000	
Rental, royalty, and		
Partnership income	5,000	
Pensions, social security	10,000	
Total income		$120,000
EXPENSES		
FIXED EXPENSES		
Insurance	$ 3,000	
Housing (mortgage, rent)	12,000	
Real estate taxes	4,000	
Utilities	2,000	
Medical	2,000	
Groceries	6,000	
Transportation (commuting)	1,000	
Repayment of debt	3,000	
Contribution to pension plan	4,000	
Total fixed expenses		$37,000
VARIABLE (DISCRETIONARY) EXPENSES		
Clothing and cleaning	$ 2,000	
Personal care	1,000	
Restaurants	5,000	
Entertainment/recreation	3,000	
Vacation/travel	4,000	
Education	3,000	
Charities and gifts	1,000	
Furniture and appliances	4,000	
Household expenses and repairs	3,000	
Total variable expenses		26,000
Total expenses		63,000
Net savings		$ 57,000

Are You Liquid?

You should compare your financial performance to the inflation rate, asset liquidity, and debt posture.

If you are illiquid, you will not be able to pay your bills. On the other hand, if you have excessive liquid assets, you will earn a lower rate of return. The more liquid the asset, the lower the return. Cash, for example, is the most liquid but does not provide a return.

You should compute the following liquidity ratios:

Liquid assets/take-home pay. Typically, your current earnings are the basis for paying current bills. The rule of thumb is that your liquid assets should be 6 months of take-home pay. This enables the individual to protect himself so that he is able to pay his bills even if for some reason his monthly take-home pay stops (for example, layoffs, illness). Of course, a lower multiple would be needed if the individual had good loss-of-income protection (for example, insurance policy or union contract).

EXAMPLE 3

Your liquid assets are $50,000 and your monthly take-home pay is $20,000. The liquid assets to take-home pay ratio is computed below.

$$\frac{\text{Liquid assets}}{\text{Take-home pay}} = \frac{\$50{,}000}{\$20{,}000} = 2.5$$

The liquid assets could cover the loss of monthly take-home pay for 2.5 months. Hence, a larger liquid balance in assets is suggested.

Liquid assets/current liabilities. Unfortunately, the ratio of liquid assets to take-home pay does not take into account existing liabilities. A useful ratio in this area is liquid assets to current liabilities.

EXAMPLE 4

If liquid assets are $50,000 and current liabilities are $10,000, the liquidity ratio is:

$$\text{Liquidity ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}} = \frac{\$50{,}000}{\$10{,}000} = 5$$

This ratio means that for every $1 of current liabilities there is $5 in liquid assets to satisfy it. The higher the ratio, the better your liquidity.

In general, liquidity ratios are designed to identify liquidity problems so an individual can take appropriate corrective action. Will you be able to meet a cash crisis?

Looking at Your Debt Level

Excessive debt is not described in terms of total dollars but rather relative to total assets and considering the individual's monthly income. Two useful ratios relating to this are

Total debt/total assets. Compute your ratio of total debt to total assets to determine how much of the assets are financed. If debt exceeds your assets, you may have a great deal of difficulty paying your bills. This may eventually lead to personal bankruptcy and result in a devastating effect on your credit rating. The debt ratio equals

$$\frac{\text{Total debt}}{\text{Total assets}}$$

EXAMPLE 5

Total liabilities are $30,000 and total assets are $50,000.

The total debt to total assets ratio is computed below.

$$\frac{\text{Total liabilities}}{\text{Total assets}} = \frac{\$30{,}000}{\$50{,}000} = .6$$

The ratio means that you have $.60 of total debt for every $1 in total assets.

A lower ratio is preferred since it is better not to owe too much money. A lower ratio would also be preferable if the market value of your assets fluctuate greatly.

Take-home pay/debt service charges. Your ability to handle debt not only depends on your assets but also on your take-home pay relative to debt service charges (monthly payment of principal and interest).

EXAMPLE 6

Your take-home pay is $40,000, and the debt-service charges (principal and interest on loans) are $10,000. The debt service coverage ratio is:

$$\frac{\text{Take-home pay}}{\text{Debt service charges}} = \frac{\$40{,}000}{\$10{,}000} = 4$$

There is $4 in take-home pay for each $1 of necessary debt repayment and interest.

A high ratio reveals better debt-carrying capacity. In general, the ratio should be at least 2.

EXAMPLE 7

Your current income is $15,000 but your income next year is expected to be $20,000. You do not want to have current debt at more than 30 percent of future income. The maximum amount of debt you should have this year is:

30% x $20,000 = $6,000

How Does Your Budget Look?

A *budget*, or *spending* plan, is vital for successful financial planning. A budget is a blueprint that helps you reach your financial goals. It will allow you to develop wise financial management habits.

You should prepare a realistic budget of the different sources of income (for example, salary, investment income, pensions) and itemize expenses by category. A budget should be based on past experience taking into account the current environment. The preparation of a budget will show how you manage cash flow. A money plan enables you to direct dollars where they are needed most.

Budgeting is best done on a monthly basis, since timely figures are needed to monitor the situation and take timely action. You are able to evaluate your estimated cash balance at the end of a period (for example, month, quarter, year). You should compare actual amounts to budgeted amounts and identify the reasons for the variances. Are you spending too much in a given expense area? Are your sources of income different than expected? Why? If actual income exceeds budgeted income, variance is favorable. However, if actual expense exceeds the budgeted expense, it is unfavorable. The variance will reveal whether corrective steps need to be made to control the situation. You may find that you have to adjust your employment activities or adjust your expenses downward.

Based on the budget, you can find out what sources of income may be increased to improve your cash balance. You may decide that certain costs have to be cut because of forecasted cash problems. You can separate necessities from luxury expenditures to see which costs you can do without. You can identify which expenses are tax deductible and which are not. More emphasis should be given to tax-deductible expenses, to obtain tax savings.

An important aspect in budgeting is the control of personal credit. The use of credit should be minimized because of the high financing cost.

EXAMPLE 8

> You incur a tax-deductible expense (for example, interest on a mortgage) of $4,000. If you are in the 28 percent tax bracket, the after-tax cost is $2,880 (4,000 x .72).

The Advantages of Budgeting

The use of budgeting will enhance your planning ability. The advantages of budgeting are:

- Aids in meeting personal goals and planning expenditures.
- Allows planning for situations when increases in income are not going to keep up with increased expenses.
- Shows where expenses can be selectively reduced.
- Enables the paying of bills on time.
- Aids in controlling expenditures.
- Assures that spending (for example, credit cards) is within predetermined limits.

- Enables setting timetables for major purchases (for example, buying a house).

Factors to be considered in determining your budget include your age, children's ages, hobbies, liquidity, health, and tax status.

There are differences involved in deriving budget estimates. Income does not always come in evenly each month. Bonuses are given at year-end. Dividends are received quarterly. It is most difficult to estimate expenses for personal maintenance, such as food, clothing, and medicine. The amount may vary from month to month. *Tip*: Actual expenses should be compared to estimated expenses each month.

Be conservative in preparing a cash inflow forecast, since it is better to underestimate. If you overestimate cash inflows, you may be planning for and incurring expenses you cannot meet.

When planning your expenses, you will know some of them by heart (for example, monthly loan payment, rent). Other expense predictions will require reference to your checkbook, credit card statements, and purchase receipts when cash has been paid.

In preparing an annual budget, you should show budgeted figures for each of the 12 months and a total column. An illustrative cash budget is shown in Exhibit 3.

Exhibit 3
Sample cash budget

Beginning Cash Balance			$15,000
Cash Receipts			
Salary - Husband	$40,000		
Salary – Wife	20,000		
Interest Income	5,000		
Dividend Income	2,000		
Royalty Income	3,000		
Gifts	6,000		
Tax Refunds	4,000		
Sale of securities	7,000		
Sale of assets	5,000		
Total Receipts		$92,000	
Cash Expenses			

Rent			
Mortgage	$4,000		
Fuel bills	3,000		
Telephone	1,000		
Electricity	2,000		
Gas Expense	600		
Water	400		
Loan Payments	1,000		
Education Expense	4,000		
Property Taxes	3,000		
Income Taxes	4,000		
Insurance Payments	2,000		
Medical Bills	6,000		
Food	8,000		
Household items	10,000		
Furniture	12,000		
Clothing	14,000		
Transportation Costs	6,000		
Entertainment Expense	5,000		
Gift Payments	2,000		
Personal Care	1,000		
Total cash payments	1,000		
		90,000	
Increase in cash flow			2,000
Ending Cash Balance			$17,000

EXAMPLE 9

Your budgeted cash inflows and cash outflows for next month are $6,000 and $4,000, respectively. The amount you can expect to save next month is:

Cash inflows	$6,000
Cash outflows	4,000
Savings	$2,000

A "Money Planner Worksheet" prepared by Bank of New York compares actual to goal figures for revenues and expenses (see Exhibit 4).

Exhibit 4

Money Planner Worksheet						
NET INCOME						
List Sources: These could include wages, alimony, child support, pensions, and so on.		**Annual**			**Monthly**	
TOTAL INCOME	$					
EXPENSES		**Annual**			**Monthly**	
	NOW		GOAL	NOW		GOAL
HOUSING						
Rent, home loan payment						
Property taxes, assessments*						
Property insurance (homeowner, tenant)*						
Maintenance, repairs						
Utilities						
Gas, electricity						
Other fuel						
Telephone						
Water, sewer						
Cable TV						
Garbage collection						
Home furnishings*						
Other (such as homeowner's associated fees, househod help other than child care						
PERSONAL MAINTENANCE						
Food						
Clothing						
Purchases						
Laundry, dry cleaning, repairs						
Self-Improvement						
Education						
Books, magazines, newspapers						
Entertainment, recreation						
Vacations*						
Other (including movies, sports, restaurants, hobbies)						

	Annual		Monthly	
	Now	Goal	Now	Goal
PERSONAL MAINTENANCE (cont'd)				
Transportation				
Gas, oil				
Repairs, maintenance*				
Parking, tolls				
Auto insurance				
License registraion				
Public transportation				
Cab Far				
Gifts, holidays expenses (other than				
Christmas Club accounts)				
Child/dependent care (including				
babysitters, nursery school fees,				
Health Care				
Health Insurance				
Doctor's visits				
Presciptions, medicine				
Personal care (including barber,				
hairdresser, cosmetics)*				
OBLIGATIONS				
Regular payments to others				
(including alimony, child support,				
other court-ordered payments)				
Contributions, dues (voluntary,				
including those deducted from your				
paycheck)				
Debt payments				
Installment loan payments				
(for vehicles, furniture, etc.)				
Credit Card, charge accounts				
SAVINGS AND INVESTMENTS				
Short-term savings (including				
Christmas Club, emergency fund)				
Long-term savings (including				
company or private pension,				
certificates of deposit)				
Life insurance				
Investments (including stocks,bonds,				
real estate)				
TOTAL EXPENSE	$	$	$	$
**Set-aside account*				

Looking at the worksheet, you should note several items. The goal may be either to limit spending or to increase it in certain areas. Is the goal realistic? Organize bills so that you know how much you owe and to whom. Is payment current or past due?

Tips to Balance Your Budget

1. Cancel your excess credit cards, or at least put them where you can't use them until you get your spending under control.
2. Stop your cable TV service or reduce the number of premium services you get.
3. Reduce your phone bill by investigating different landline or mobile phone options, and investigate special calling plans.
4. Take public transportation to work or school if it's cheaper than driving, or carpool.
5. Avoid unnecessary purchases.
6. Become a savvy comparison shopper. Do your research first to curb impulse buying, and be sure you're getting the best price when you must buy an item. Shop with Google. You punch in a product into Google. Or you can go to Google Product Search's landing page (www.google.com/products). Type in what you're looking for (e.g., "Apple iPod Nano"), and check the results showing the price ranges.
7. Use coupons when you grocery shop, and look for stores that offer double coupon savings.
8. Keep a daily spending diary. Writing down every dollar you spend keeps you from forgetting those little expenses that really add up.
9. Bring your lunch and snacks to work. You'd be surprised how much eating out can cost.
10. Join a local food cooperative where you can save hundreds of dollars a year on grocery bills.
11. Use the library instead of buying books or renewing magazine subscriptions.
12. Consider lowering auto and homeowner's insurance premiums by raising deductibles.
13. Don't carry extra cash; you'll be tempted to spend it.

EXAMPLE 10

You budget 8 percent of your monthly take-home pay of $1,600 for medical bills. Your budgeted medical cost is:

$$\$1,600 \times .08 = \$128$$

EXAMPLE 11

You make installment payments of $170 per month. The percentage this is of your monthly take-home pay of $1,500 is:

$$\frac{\$170}{\$1,500} = 11.3\%$$

EXAMPLE 12

Your monthly take-home income is $1,800. You want to buy a house that is expected to cost $480 a month to upkeep. Will this amount keep you within 25 percent of your budget?

$1,800 x .25 = $450

No. You are $30 ($480 - $450) over your budget.

EXAMPLE 13

You budget 30 percent of your take-home pay for food and 25 percent for housing. Your monthly pay is $1,700. The amount budgeted for food and housing is:

Food (.30 x $1,700)	$510
Housing (.25 x $1,700)	425
Total	$935

$1,700 - $935 = $765 remains for other items.

EXAMPLE 14

You budget 25 percent for food, 30 percent for housing, and 10 percent for clothing. The remainder is discretionary. If your monthly take-home pay is $2,000, the amount you can spend on other items is:

100% - 25% - 30% - 10% = 35% remaining

$2,000 x 35% = $700

EXAMPLE 15

You will be purchasing a new car. You budget 14 percent of your monthly income of $2,300 for transportation. Of this amount, you spend $110 a month on automobile expenses. The amount you can afford to spend on car payments is:

Transportation expense ($2,300 x 14%)	$322
Auto expenses	110
Car payments	$212

The car payments accounts for 65.8% of the transportation budget.

$$\frac{\$212}{\$322} = 65.8\%$$

To take inflation into account, expense projections should incorporate the expected inflation rate.

EXAMPLE 16

If clothing is currently $1,000 and inflation is forecasted at 5 percent, your budgeted cost is:

$1,000 x 1.05 = $1,050

EXAMPLE 17

Your beginning cash balance on January 1, 20XY, is $50,000. Taxable sources of income (for example, salaries, interest, dividends) are $60,000. Nontaxable sources of income (for example, gifts) are $25,000. Tax-deductible expenses (for example, interest on mortgage and property taxes) are $30,000. Nondeductible expenses (for example, entertainment and clothing) are $15,000. Your tax rate is 28 percent. The ending cash balance on December 31, 20X1 is:

Cash balance, January 1, 20X1		$50,000
Cash receipts:		
Taxable receipts ($60,000 x .72)	$43,200	
Nontaxable receipts	25,000	
		68,200
		$118,200
Cash payments:		
Taxable payments ($30,000 x .72)	$21,600	
Nontaxable payments	15,000	
		36,600
Cash balance, December 31, 20X1		$81,600

Some tips for the preparation of a budget are:

- Code your check stub with an account number for the expense. This aids in summarizing expenses by category at the end of the budget period.
- Code income items as you make bank deposits.
- Inquire at your bank to see if it provides computerized services to summarize checks and deposit slips.
- See if you can use a budgeting software program on your personal computer.
- Use an expense app on your smartphone.

Your Savings

To be conservative and safe, you should have at least 6 months' income in a savings account. However, 3 to 6 months is more realistic for most people. Try to put a minimum of 10 percent of gross income each period into savings. If you tie up your last cent in stocks and bonds, you may have to sell them when they are down in price. You need to have a basic amount of money saved for ordinary living expenses and emergencies.

EXAMPLE 18

Your gross income and net income are $55,000 and $42,000, respectively. If you want to save 12 percent of gross income, your savings should be:

$55,000 x 12% = $6,600

If your income fluctuates sharply, have more in a savings account. Also have a backup fund that can be tapped if needed. The backup fund should be about the same amount as that in your liquid bank account. A backup fund may be in the form of a certificate of deposit.

Take full advantage of a pension plan, since your contributions and interest earned on them are tax deferred. You are also accumulating a nest egg for old age.

More on Personal Financial Statements

AICPA Statement of Position (SOP) 82-1, *Accounting and Financial Reporting for Personal Financial Statements*, requires personal financial statements to present assets at their estimated current values. The estimated current value of an asset is defined as “the amount at which the item could be exchanged between a buyer and seller, each of whom is well informed and willing, and neither of whom is compelled to buy or sell.” Material costs of disposal should be considered in making the estimate. Current value may be based on discounted cash flow, market price, appraisal value, or other basis depending on the asset. Appraisal value is appropriate for works of art. SOP 82-1 further specifies that investments in life insurance be reported at their cash values minus the amount of any outstanding loans.

Liabilities, including payables, should be presented at their estimated current amounts at the date of the statement. The estimated current amount of a liability is the discounted amount of cash to be paid. The interest rate is the rate implicit in the transaction in which the debt was incurred. But if the amount at which the debt can currently be discharged is lower, that amount should be used.

SOP 82-1 requires that personal financial statements include at least a statement of financial condition. This statement presents estimated current values of assets, estimated current amounts of liabilities, estimated income taxes, and net worth (total assets - total liabilities - estimated income taxes) at a given date. SOP 82-1 also requires that, personal financial statements include the estimated tax on the difference between the book values of assets and liabilities and their respective tax bases as if they had been recovered or settled.

SOP 82-1 further recommends, but does not require, a statement of changes in net worth (a presentation of the major sources of increases and decreases in net worth) and comparative financial statements. A personal statement of cash flows, however, is neither required nor recommended.

- Assets and liabilities and changes in them are recognized on the accrual basis, not the cash basis.
- The recommended presentation of assets and liabilities is by order of liquidity and maturity.

Conclusion

Personal financial statements can be prepared, showing how much you are worth and how much money is available for savings or investment. They enable you to properly manage assets and liabilities in terms of return and risk. For example, monitoring debt status is important, to assure you do not owe more than you can pay. The preparation of a budget facilitates the meeting of goals and the planning of income and expenses for the upcoming months.

Website for Basic Financial Publications, Forms and Lists

www.usaaedfoundation.org

Forms include

- Financial Goals Work Sheet
- Savings Goals Work Sheet
- Personal Financial Statement
- Budget Work Sheet

Chapter 3 Review Questions

1. Personal financial statements will NOT disclose estimated future inheritance. True or False?

2. Your liquid assets are $50,000 and your monthly take-home pay is $20,000. Your liquid asset to take-home pay ratio is 40%. True or False?

3. Advantages of budgeting may include all EXCEPT:

   A. It aids in meeting personal goals
   B. It allows for increased credit card spending
   C. It show where expenses can be selectively reduced
   D. It enables the paying of bills on time

4. Personal financial statements should report assets and liabilities at

   A. Estimated current values at the date of the financial statements and, as additional information, at historical cost.
   B. Estimated current values at the date of the financial statements.
   C. Historical cost and, as additional information, at estimated current values at the date of the financial statements.
   D. Historical cost.

5. Personal financial statements should include statements of financial condition and cash flow. True or False?

6. For the purpose of estimating income taxes to be reported in personal financial statements, assets and liabilities measured at tax bases should be compared with assets and liabilities measured at their estimated current values and current amounts, respectively. True or False?

7. SOP 82-1 requires or recommends which of the following personal statements?

A. Changes in Net Worth statement, and Cash Flows statement
B. Financial Conditions statement only
C. Financial Conditions statement, and Changes in Net Worth statement
D. Financial Conditions statement, Changes in Net Worth statement, and Cash Flow statement

8. Personal financial statements should report an investment in life insurance at the cash value of the policy minus the amount of any loans against it. True or False?

9. In a personal statement of financial condition, marketable equity and debt securities should be reported at quoted market prices. True or False?

10. Smith owns several works of art. These art works should be reported in Smith's personal financial statements at original cost. True or False?

Chapter 3 Review Questions

1. Personal financial statements will NOT disclose estimated future inheritance. True or False?

> **True is correct**. Personal financial statements do not disclose future potential assets such as inheritance.
>
> False is incorrect. Personal financial statements should disclose the following: 1) Nature of joint ownership of assets, if any; 2) Identification of significant investments in particular companies and/or industries; 3) Value of life insurance

2. Your liquid assets are $50,000 and your monthly take-home pay is $20,000. Your liquid asset to take-home pay ratio is 40%. True or False?

> True is incorrect. 40% is $20,000/$50,000, which is the ratio of take-home pay to liquid assets.
>
> **False is correct**. The liquid assets to take-home pay ratio is: (liquid assets) / (take—home pay) = $50,000 / $20,000 = 2.5.

3. Advantages of budgeting may include all EXCEPT:

A. Incorrect. Budgeting aids in meeting personal goals.
B. **Correct.** Budgeting is not intended to allow for increased credit card spending. The advantages of budgeting are: 1) It allows planning for situations when increases in income are not going to keep up with increased expenses; 2) It shows where expenses can be selectively reduced; 3) It enables the paying of bills on time.
C. Incorrect. Budgeting shows where expenses can be selectively reduced.
D. Incorrect. Budgeting enables the paying of bills on time.

4. Personal financial statements should report assets and liabilities at

A. Incorrect. The historical cost of assets and liabilities does not have to be reported.
B. **Correct.** AICPA Statement of Position (SOP) 82-1, Accounting and Financial Reporting for Personal Financial Statements, requires personal financial statements to present assets at their estimated current values. Liabilities should be presented at their estimated current amounts at the date of the statement. The estimated current value of an asset is defined as the amount at which the asset could be exchanged between informed and willing sellers and buyers, neither of whom is compelled to buy or sell. Estimated current amounts of liabilities are defined as the

lower of either the amount of future cash to be paid discounted at the interest rate implicit in the transaction in which the debt was incurred or the amount at which the debt could currently be discharged.

C. Incorrect. The historical cost of assets and liabilities does not have to be reported.

D. Incorrect. Estimated current values should be used.

5. Personal financial statements should include statements of financial condition and cash flow. True or False?

True is incorrect. According to SOP 82-1, statements of financial condition and changes in net worth, but not of cash flows, should be included.

False is correct. SOP 82-1 requires that personal financial statements include at least a statement of financial condition. SOP 82-1 further recommends, but does not require, a statement of changes in net worth and comparative financial statements. A personal statement of cash flows, however, is neither required nor recommended.

6. For the purpose of estimating income taxes to be reported in personal financial statements, assets and liabilities measured at tax bases should be compared with assets and liabilities measured at their estimated current values and current amounts, respectively. True or False?

True is correct. According to SOP 82-1, personal financial statements include the estimated tax on the difference between the book values of assets and liabilities and their respective tax bases as if they had been recovered or settled. Assets and liabilities are measured at their estimated current values and current amounts, respectively.

False is incorrect. Assets should be presented at estimated current values. Liabilities should be presented at their estimated current amounts at the date of the statement (lower of either the amount of future cash to be paid discounted at the interest rate implicit in the transaction or the amount at which the debt could currently be discharged).

7. SOP 82-1 requires or recommends which of the following personal statements?

A. Incorrect. SOP 82-1 requires a statement of financial condition, but not that of cash flows.

B. Incorrect. SOP 82-1 recommends changes in net worth.

C. **Correct.** SOP 82-1 requires that personal financial statements include at least a statement of financial condition. SOP 82-1 further recommends, but does not require, a statement of changes in net worth and comparative financial statements. A personal statement of cash flows, however, is neither required nor recommended.

D. Incorrect. Statements of financial condition and changes in net worth, but not of cash flows, should be included.

8. Personal financial statements should report an investment in life insurance at the cash value of the policy minus the amount of any loans against it. True or False?

True is correct. SOP 82-1 requires that assets be presented at their estimated current values in a personal statement of financial condition. SOP 82-1 further specifies that investments in life insurance be reported at their cash values minus the amount of any outstanding loans.

False is incorrect. According to SOP 82-1, an investment in life insurance should be reported at cash value of the policy minus the amount of any loans against it. The face value of the policy should not be used.

9. In a personal statement of financial condition, marketable equity and debt securities should be reported at quoted market prices. True or False?

True is correct. SOP 82-1 requires that assets be presented at their estimated current values in a personal statement of financial condition. The current value of marketable securities is customarily determined by market prices.

False is incorrect. The current value of marketable securities is customarily determined by market prices.

10. Smith owns several works of art. These art works should be reported in Smith's personal financial statements at original cost. True or False?

True is incorrect. According to SOP 82-1, appraisal value is appropriate for works of art.

False is correct. SOP 82-1 requires that assets be presented at their estimated current values in a personal statement of financial condition. Current value may be based on discounted cash flow, market price, appraisal value, or other basis depending on the asset. Appraisal value is appropriate for works of art.

Chapter 4:

Career Planning and Financial Success

Learning Objectives

After reading this chapter you will be able to:

- Evaluate career paths motivation.
- Review job benefit options.
- Identify some of the work-at-home benefits.
- Recognize career resources and understand certain educational costs.

You have to find a career that you not only feel comfortable with but also one that is financially rewarding. A quantitative evaluation can be used to select the best job considering salary, fringe benefits, and promotion. The "real earnings" involved in alternative job offers must be determined. Further, it may pay to work out of your home. A lot of money can be made in starting your own business or opening a franchise. But how do you determine the value of a prospective business? Also when starting a new business you must be willing to take the risk of losing all or part of your investment. Finally, if you hold an undergraduate college degree, you may wish to decide whether it pays to earn a graduate degree.

Career Plans

There is a positive relationship between higher income and higher education. How much more does the college graduate earn? The average income of college graduates is about 1.5 times the average income of high school graduates. You can estimate future income on the basis of data that show average incomes in different occupational groups in various parts of the country. Certain occupations not only have a higher starting salary but also provide greater opportunity to achieve a higher final salary (for example, attorneys). Income varies with years of experience. Limited salary increases apply to file clerks and typists. Average salaries tend to be higher in larger companies than smaller ones.

In selecting a career, consider the current and future salary levels, opportunity for advancement, working conditions, stability of employment, and personal satisfaction of the job.

Your career checklist should include obtaining proper education and training, selecting a growing industry and economic area, assuring your continued learning, and providing flexibility. The following checklist summarizes important steps to take, help track your progress, and help you organize your career search.

A Career Planning Checklist

Assess Yourself

1. I have chosen the setting in which I would like to work (e.g., large industrial, small business, government, nonprofit).
2. I have chosen one of the following locations: rural, urban, suburban.
3. I have listed my three most useful job skills.
4. I know what I am most successful doing.
5. I have identified whether I want to work with people, data, or things.
6. I know whether I want to be supervised or be the supervisor.
7. I know if I want to work with others or work alone.
8. I have listed several career areas that interest me.
9. I know whether I like “doing” or “thinking” activities at work.
10. I have listed my favorite activities (hobbies, sports, etc.).
11. I know what values are most important to me (e.g., prestige, security, variety).
12. I know what kind of rewards I need in a job (e.g., social, monetary, job flexibility).

Research Career Information

1. I am familiar with the career information in the placement office or public library so I can explore my options.
2. I have a list of career possibilities to research.
3. I follow current trends in my field (salary, job requirements, growth).
4. I have identified three or more employers in the fields I am considering.
5. I have sought information and advice from at least three contacts in my field(s).

Try Work Options

1. I have narrowed down the career options I am considering.
2. I have identified the additional education or experience
3. I need to prepare for my choices (e.g., course work, part-time work, extracurricular activities).
4. I have discovered ways that my academic work supports my career objective.
5. I have participated in some work experience or internship program in my field of interest.
6. I am aware of the daily realities of the occupational area I am approaching.
7. I have visited several work sites being considered as my career choice.
8. I have become an active member in at least one professional association to enhance job awareness.

To help determine a career choice and job opportunities you may refer to the Occupational Outlook Handbook published by the U.S. Department of Labor's Bureau of Labor Statistics (www.bls.gov/ooh/home.htm) found in many libraries or its Website.

Occupational Outlook Handbook (OOH), 2012-2013 Edition

For hundreds of different types of jobs—such as teacher, lawyer, and nurse—the Occupational Outlook Handbook tells you:

1. The training and education needed
2. Earnings
3. Expected job prospects
4. What workers do on the job
5. Working conditions

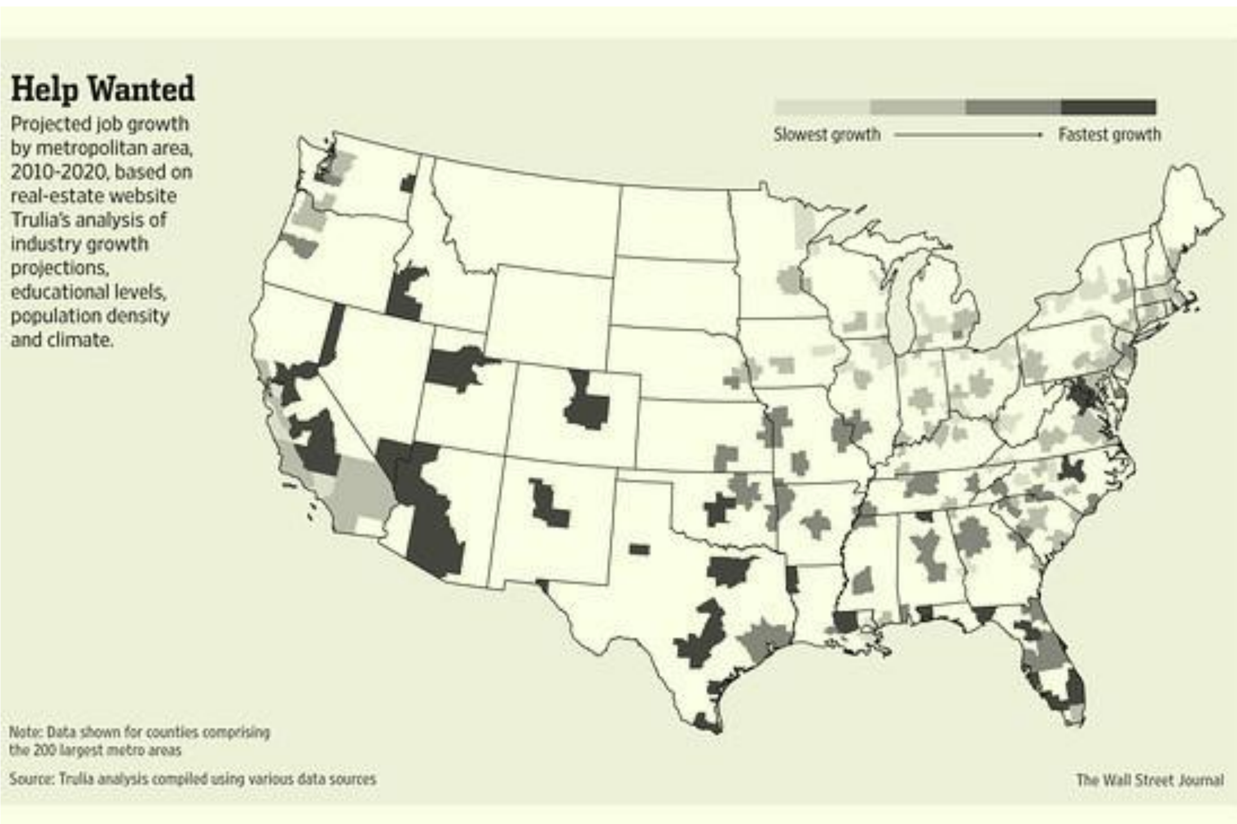
In addition, the Handbook gives you job search tips, links to information about the job market in each State, and more. Ways to use the Occupational Outlook Handbook site: (1) To find out about a specific occupation or topic, use the Search box that is on every page—enter your search term in the box. (2) To find out about many occupations, browse through listings using the Occupations links that are on the right side of each page. (3) For a listing of all occupations in alphabetical order, go to the A-Z Index and select a letter. The Occupational Outlook Handbook is a nationally recognized source of career information, designed to provide valuable assistance to individuals making decisions about their future work lives. The Handbook is revised every two years.

The 2010-20 Employment Projections

The 10-year projections of industry and occupational employment are revised every 2 years. The Employment Projections: 2010-2020, February 1, 2012 news release covering the 2010-20 Projections is accessible at www.bls.gov/news.release/ecopro.toc.htm. Detailed information on the 2010-20 projections appears in five articles in the January 2012 issue of the Monthly Labor Review, accessible online at www.bls.gov/opub/mlr/2012/01/home.htm. A graphic presentation of the highlights of the projections appears in the winter 2011-12 Occupational Outlook Quarterly, accessible at www.bls.gov/ooq/2011/winter/home.htm. Technical documentation about the projections is available online at www.bls.gov/emp/ep_tech_documentation.htm.

Here's a look at the industries expected to generate the most job growth in the next seven years (http://www.bls.gov/news.release/ooh.nr0.htm):

Exhibit 1
Help Wanted



Health care: The Bureau of Labor Statistics projects that health care and social assistance will gain 5.6 million jobs during 2010-20, the most of any sector. That means jobs like registered nurses, physician assistants, radiology techs and home health aides.

Medium-skill jobs: While outsourcing has killed many of these jobs over the last two decades, there are still opportunities for noncollege grads that have career potential and pay well. These jobs combine technical and interpersonal skills that can't be outsourced or automated. These "new artisan" jobs include tradespeople like plumbers and electricians, chefs, college coaches and construction supervisors.

Leisure and hospitality: Waiting tables isn't the most glamorous gig, but the industry will add 1.3 million jobs by 2020. Vacation and business travel are picking up as the economy improves and international travel to the U.S. increases. There's always going to be a great need for folks in this sector. You really can't outsource a job in a restaurant or a job in a hotel to another country. Wages, however, won't increase much because many people are qualified to do these jobs.

Professional and business services: The BLS projects this sector—comprising consultants and other professionals skilled in areas such as legal services, accounting and advertising—will generate 3.8 million openings this decade. *Fueling growth:* Companies are farming out more back-office functions and relying on consultants to cut costs. The consulting sector can be good for someone who wants to go into business but earned a liberal-arts degree. Getting into one of the big consulting firms can be an advantage because "that gives you a set of experiences across business functions," he says.

Technology and information services: With companies increasingly storing data off-site and integrating technology into their business, they need more people to keep everything operating smoothly, guard against cyber intrusions and analyze data to find business opportunities. The bureau expects there to be 778,000 new jobs this decade in what it calls the computer and mathematical sector—jobs such as computer-systems analysts, information-security analysts and software developers. Whether it's a cloud developer, a software developer, a mobile developer, or anything around the IT-engineering space, you're going to have a job in the United States for a long time, and probably a pretty good paying job.

Business and financial operations: This field is expected to add 1.17 million jobs this decade for jobs like credit counselors, compliance officers and financial examiners. Companies are ramping up staff to comply with tighter financial regulations and the new health-care law.

Exhibit 2

http://www.bls.gov/ooh/about/projections-overview.htm

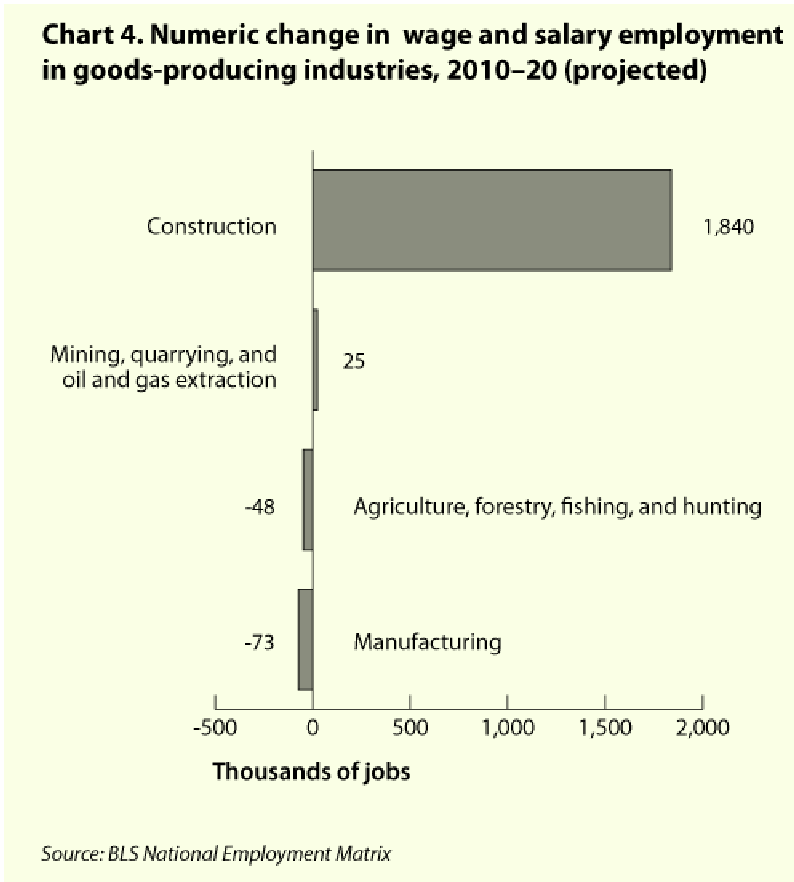
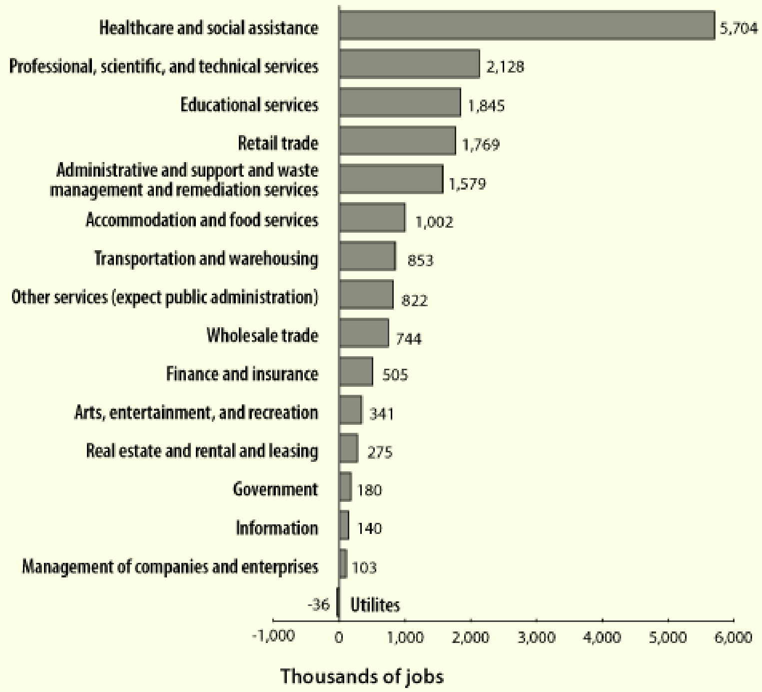


Exhibit 3

Chart 5. Numeric change in wage and salary employment in service-providing industries, 2010–20 (projected)



Source: BLS National Employment Matrix

Exhibit 4

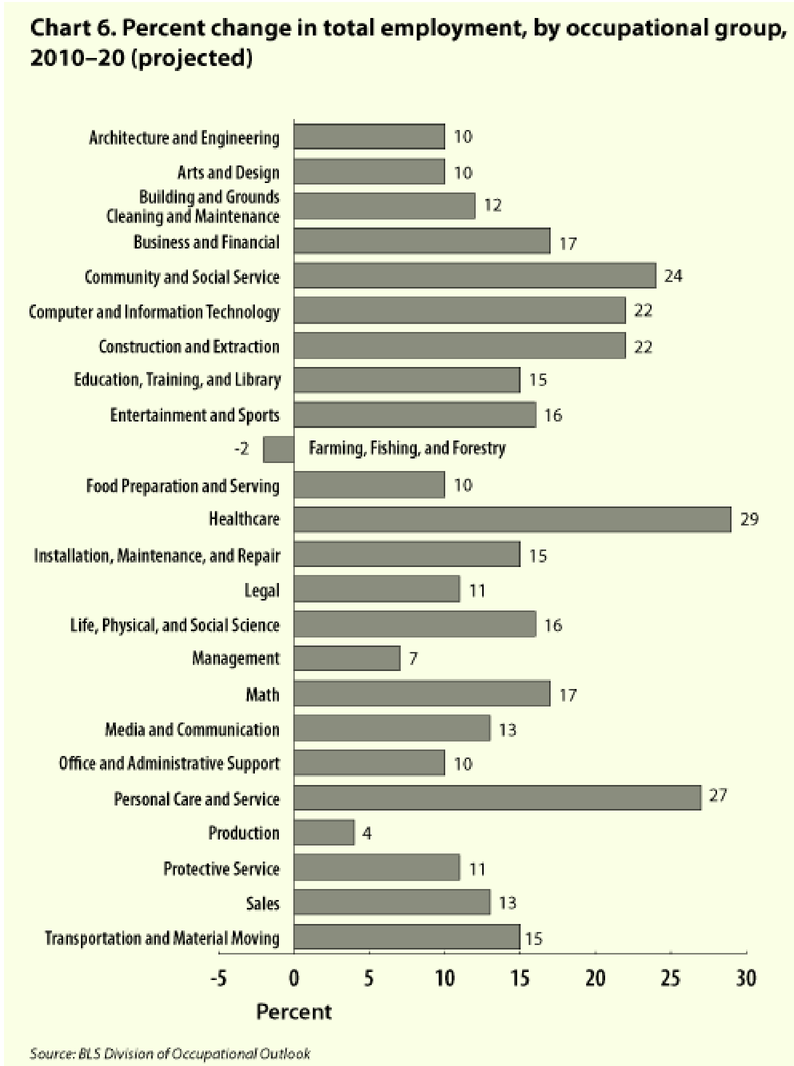


Chart 6. Percent change in total employment, by occupational group, 2010–20 (projected)
Architecture and Engineering
10
Arts and Design
10
Building and Grounds Cleaning and Maintenance
12
Business and Financial
17
Community and Social Service
24
Computer and Information Technology
22
Construction and Extraction
22
Education, Training, and Library
15
Entertainment and Sports
16
-2
Farming, Fishing, and Forestry
Food Preparation and Serving
10
Healthcare
29
Installation, Maintenance, and Repair
15
Legal
11
Life, Physical, and Social Science
16
Management
7
Math
17
Media and Communication
13
Office and Administrative Support
10
Personal Care and Service
27
Production
4
Protective Service
11
Sales
13
Transportation and Material Moving
15
-5
0
5
10
15
20
25
30
Percent
Source: BLS Division of Occupational Outlook

Exhibit 5

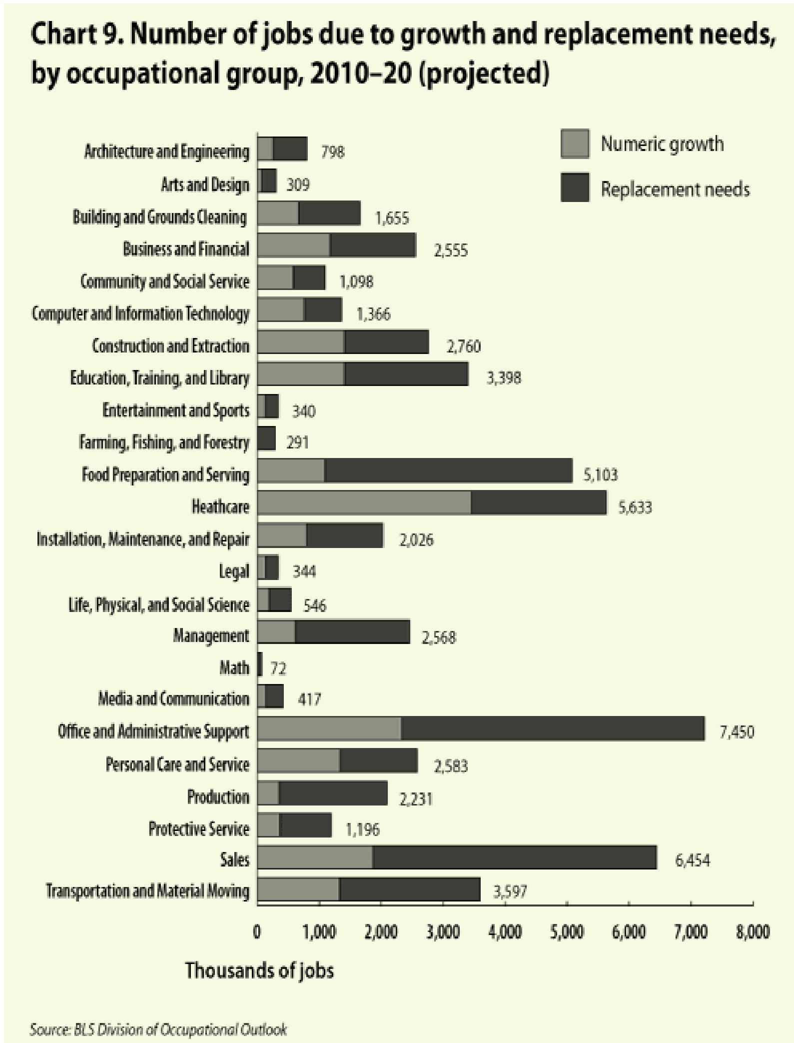
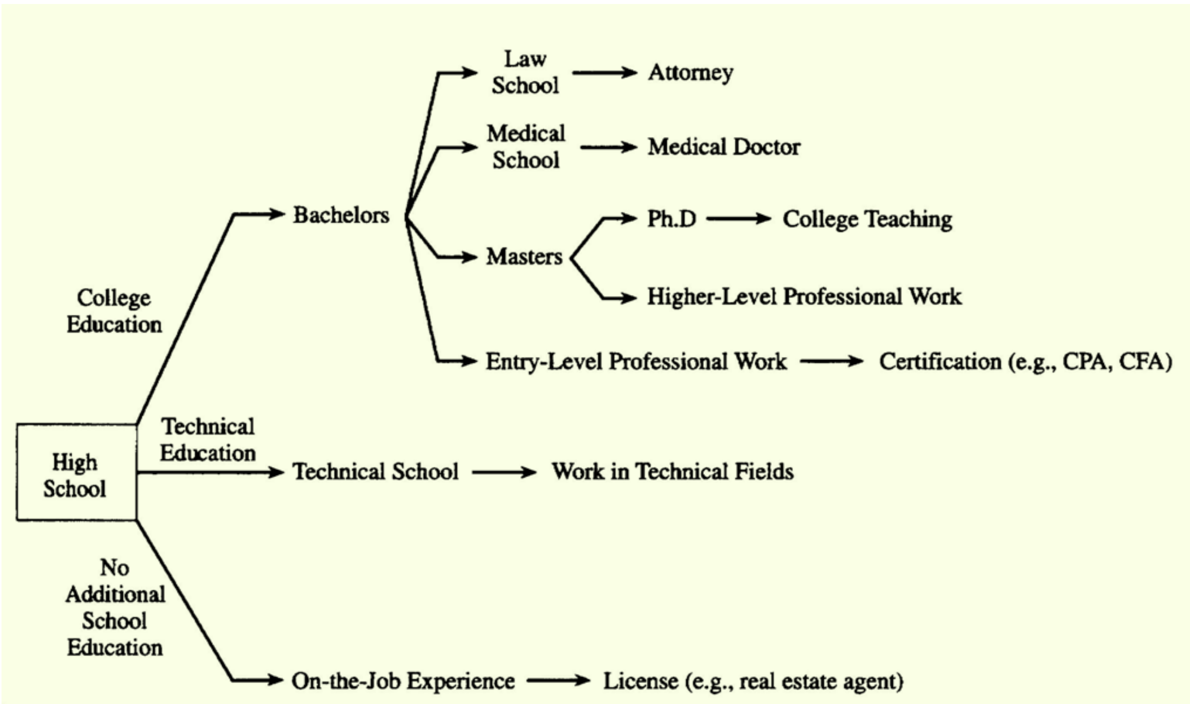


Chart 9. Number of jobs due to growth and replacement needs, by occupational group, 2010–20 (projected)
Numeric growth
Replacement needs
Architecture and Engineering
798
Arts and Design
309
Building and Grounds Cleaning
1,655
Business and Financial
2,555
Community and Social Service
1,098
Computer and Information Technology
1,366
Construction and Extraction
2,760
Education, Training, and Library
3,398
Entertainment and Sports
340
Farming, Fishing, and Forestry
291
Food Preparation and Serving
5,103
Heathcare
5,633
Installation, Maintenance, and Repair
2,026
Legal
344
Life, Physical, and Social Science
546
Management
2,568
Math
72
Media and Communication
417
Office and Administrative Support
7,450
Personal Care and Service
2,583
Production
2,231
Protective Service
1,196
Sales
6,454
Transportation and Material Moving
3,597
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Thousands of jobs
Source: BLS Division of Occupational Outlook

How to Appraise an Alternative Job

There are many financial and nonfinancial factors to examine in deciding on a particular job offer.

Exhibit 1
Career opportunity map



What are some considerations to take into account in pursuing a job option?

Relevant factors in deciding upon a proper job include skills and abilities, work experience, education, health, financial position, career goal, and personal interest. Always try to seek a position that is one level higher than your present position.

What employment benefits do you need to quantify?

You should quantify the following employment benefits:

- Salary including overtime premium
- Fringe benefits
- Nontaxable compensation (for example, automobile use, use of a house, liability insurance)
- Stock option plan
- Low interest loans

What fringe benefits are important to consider?

Important fringe benefits include:

- Holidays.
- Paid vacations.
- Group insurance policies (for example, health, life, catastrophic illness, outpatient psychiatric care, dental, prescription drugs, automobile, homeowners). Do the policies cover dependents? If you leave the employer, can you convert the group coverage to a low-cost individual policy within a prescribed time period?
- Pension plan. Employer-sponsored pension plans may differ as to the amount of employee contribution. By law, the employee must vest in the plan after working 5 years.
- Profit sharing plan. You pay no tax on monies in the deferred profit sharing or pension plan until withdrawals are made. For example, if your employer has a profit sharing plan, you will receive a percent of the net income. Assume you are entitled to .3 percent of the company's profit based on years of service and salary. If the company's earnings are $1,800,000, your share is $5,400 ($1,800,000 x .003). Profit sharing and pension plans require a certain number of years of employment in order to vest under the plans.
- Investment programs, such as in the company's stock. Included are dividend reinvestment plans.
- Employer reimbursement for education expenses, including scholarships for children. Employer reimbursement for education is taxable.
- Employer reimbursement for relocation costs. Assistance may include finding the house, paying for moving costs and/or part of the interest on the mortgage, and lending money for a down payment.
- Employer discounts on company products.
- Paying membership fees to professional and trade associations.

What is the before-tax effect of fringe benefits? Fringe benefits are desirable because you receive something of value without having to pay tax. If the employer increased your salary so you could buy health insurance on your own, you would have to pay tax on that higher salary. Thus, it is better to get more fringe benefits from the employer so you will not have to pay additional income tax.

EXAMPLE 1

Your employer provides $1,000 of medical coverage as a fringe benefit. Assuming a tax rate of 28 percent, the amount of taxable income necessary to individually purchase this same benefit is:

$$\text{Before-tax cost} = \frac{\text{Tax} - \text{free fringe benefit}}{1 - \text{tax rate}} = \frac{\$1{,}000}{1-.28} = \frac{\$1{,}000}{.72} = \$1{,}389$$

In other words, if you received extra compensation and you bought your own $1,000 policy, your salary would have to increase by $1,389 before tax. The tax on it would be $389 ($1,389 x .28).

When comparing job offers, always compute the "real pay."

EXAMPLE 2

You want to determine your "real" compensation. This represents your equivalent before-tax total income. Remember fringe benefits are nontaxable so your equivalent before-tax earnings are higher. Assume you are in the 30 percent tax bracket. Your annual salary is $55,000. You receive fringe benefits of medical insurance, $2,000; disability insurance, $200; life insurance, $150; employer pension plan contribution, $1,750; discounts on company products, $300; services paid by your employer (for example, parking fees, meals), $250; and tuition reimbursement, $500.

Your total real pay is computed below.

Annual salary	$55,000
Fringe benefits:	
Medical insurance	$3,000
Disability insurance	200
Life insurance	150
Pension plan contribution	1,750
Company discounts	300
Services paid by employer	250
Tuition reimbursement	500
Total fringe benefits	$6,150
Value on a before-tax basis ($6,150/.7)	8,756
Real pay	$46,244

Note: The costs of searching for a new job in your present occupation may qualify as a miscellaneous tax deduction.

Should You Work Out of Your Home?

There are many tax breaks for running a business at home. Business income and related business expenses are reported on Schedule C of Form 1040. Business deductions include interest on mortgage and real estate taxes.

The percentage of business use of the home is determined by dividing the total number of rooms by the number of rooms used for the business. This percentage is multiplied by your costs to determine the business-related part of that expense. For example, multiply the percentage based on rooms by mortgage interest and real estate taxes to determine the business portion. The percentage use for business of other expenses, including utilities, housecleaning, and repairs, are also taken off on Schedule C. Also, you should have a separate telephone number for business calls. Do not forget to deduct depreciation on the home and office furniture.

The cost savings of working at home include commuting costs, personal expenses associated with the job (for example, cost of lunch at a restaurant), expensive clothing, and child-care fees.

The drawbacks of self-employment are:

- Employer's share of FICA tax (social security)
- Higher-rate premiums for individual insurance policies compared to group insurance policies (for example, medical, dental, life insurance)

Executive Job Loss Insurance

You can take out an executive job loss insurance policy. In return for paying a specified percentage of salary as a premium you will be compensated if you are laid off. The policy not only includes coverage for after-tax earnings but also for fringe benefits and typical bonuses.

Job Hunting and Career Websites

www.dol.gov

The Department of Labor site. Includes general information on various occupations, useful links.

www.careeronestop.org/jobseekertools

Sponsored by the U. S. Department of Labor, Employment and Training Administration, includes the most-recommended sites for niche job boards, using social media, job searches, career planning tools, career exploration tools and other tools.

www.usajobs.gov

USAJOBS.com is the official job site of the US Federal Government. It's your one-stop source for Federal jobs and employment information.

www.monster.com

Monster.com keeps getting better. There are more than 370,000 job postings, including one for a senior investment stockbroker position paying up to $3,000,000 annually. Recently, Monster acquired Job Track, so it now provides jobs and resume databases for more than 1,000 university career centers. There is an impressive research section where you can pull up profiles of thousands of companies.

www.careerbuilder.com

This network of 75 career sites is easily navigable. There are more than 1 million resumes. The Layoff Survival Kit suggests that if you get fired you should be honest about it in an interview, but you shouldn't volunteer information.

www.careershop.com

Search for jobs and consult a career doctor about things like how long to wait before you accept a job offer. The doc's advice: Reply within one week. The site is packed with information.

www.dice.com

This site has more than 80,000 tech job postings from 6,800 employers nationwide—despite the recent layoffs in IT. Register your IT skills. When a job comes up, you'll get an e-mail. Tools include one that helps you prepare for certification exams.

www.linkedin.com

LinkedIn is a social networking site specifically created for professionals. Although not a job website, it has become a driving force in the recruitment and research of professional positions.

Top 10 Job Search Web Sites

Base on a survey made in January 2010 by The U.S. Labor Department, here are the top 10 sites in alphabetical order.

General job boards	Link
America's Virtual OneStop	http://www.americasvos.com
CareerBuilder.com	http://www.careerbuilder.com
Careerstallion.com	http://www.careerstallion.com
Indeed.com	http://www.indeed.com
JobSearchUsa.org	http://www.jobsearchusa.org
Linkup.com	http://www.linkup.com
Monster Newspaper Partnerships	http://media.monster.com/a/i/infomons/pdf/NPP_PartnerList_2009.pdf
Monster.com	http://www.monster.com
Simplyhired.com	http://www.simplyhired.com
USAjobs.gov	http://www.usajobs.gov

Chapter 4 Review Questions

1. A career planning check list should leave advancement to chance. True or False?

2. There is a positive relationship between higher income and higher education. True or False?

3. Important fringe benefits do NOT include:

  A. Holidays
  B. Group insurance policies
  C. Pension plans
  D. Home ownership

4. One of major job search Web sites is:

  A. Smartmoney.com
  B. CNBC.com
  C. Yahoo.com
  D. Monster.com

Chapter 4 Review Answers

1. A career planning check list should leave advancement to chance. True or False?

True is incorrect. You should not leave advance to chance in your career planning.

False is correct. A career planning check list should include: 1) I have chosen the setting in which I would like to work (e.g., large industrial, small business, government, nonprofit); 2) I have chosen one of the following locations: rural, urban, suburban; 3) I know what I am most successful doing.

2. There is a positive relationship between higher income and higher education. True or False?

True is correct. The average income of college graduates is about 1.5 times the average income of high school graduates.

False is incorrect. Income varies with years of experience and education.

3. Important fringe benefits do NOT include:

A. Incorrect. Important fringe benefits include holidays, group insurance policies, pension plan, and profit sharing plan.
B. Incorrect. Group insurance policies are a major fringe benefit.
C. Incorrect. Fringe benefits include pension plan and profit sharing plan.
D. **Correct.** Homeownership per se is not part of fringe benefits. Employers may help you finance your home.

4. One of major job search Web sites is:

A. Incorrect. It is a money management and investment Website.
B. Incorrect. This is consumer news and business site.
C. Incorrect. This is a Web portal.
D. **Correct.** Monster.com has more than 370,000 job postings and now provides jobs and resume databases for more than 1,000 university career centers. There is an impressive research section where you can pull up profiles of thousands of companies. Monster's moving division offers relocation services.

Chapter 5:

Planning for College Education

Learning Objectives

After reading this chapter you will be able to:

- Determine how much money savings required for a college education.
- Identify ways to finance college education.
- List sources of financial aid.
- Outline Federal government programs.

This chapter deals with providing for your child's college education. It discusses how to save to meet future educational costs; what types and amounts of costs will be incurred; and how to make the future value calculations necessary to determine annual savings, interest rate required on funds, etc. Various sources of financial aid are identified. Information on career opportunities is also provided.

College Education Financials

Financing a College Education

There are many ways to put money aside to finance a college education including buying zero-coupon bonds (preferably with distant maturity dates), home equity loans, and hiring children in your business.

One way to finance your child's education is by taking out a home equity loan. Interest is deductible on a mortgage to finance the child's education. (In contrast, with a regular loan you cannot deduct the interest).

You can buy your child shares in a growth mutual fund, automatically reinvesting the dividends and capital gain distributions. The dividends and distributions do not amount to much; most of the money is earned from the growth in the value of the shares. Therefore, the annual yield might not exceed the $1,000 limit. However, 10 years down the line there should be a significant increase in the share value. If the shares are sold after the child's eighteenth birthday, the capital gain is taxed at the child's lower tax rate.

If you have a business, you can hire your children. Their wages, if reasonable, are tax deductible. Place the money in an account for the child's future education. Further, if you have an unincorporated business, you do not have to pay social security tax on wages paid to children.

What Does Education Cost and How Much Money Will You Need?

The cost of higher education has increased significantly and therefore you must begin saving well in advance. In fact, college costs are expected to more than double within the next 10 years.

Some examples of college-related costs include tuition, fees, room and board, books, supplies, tablets and computers, transportation, and personal expenses. To see just how expensive college is likely to become, take a look at the chart below.

Estimated Cost of One Year of College Education, Including Room and Board

School Year	*Public - 4 Year*	*Private - 4 Year*
2006-2007	15,452	33,291
2007-2008	16,225	34,956
2008-2009	17,036	36,704
2009-2010	17,888	38,539
2010-2011	18,782	40,466
2011-2012	19,721	42,489
2012-2013	20,707	44,613
2013-2014	21,742	46,844
2014-2015	22,829	49,186
2015-2016	23,970	51,645
2016-2017	24,090	54,227

Cost figures assume a 6% annual increase and use as a base The College Board survey data for the current school year (tuition, room and board, transportation, books and other expenses).

Source: The College Board, 45 Columbus Avenue, New York, NY 10023-6992, (212) 713-8000 (www.collegeboard.org)

EXAMPLE 1

Your child wants to go to college for the next 4 years. The annual cost is $4,500 and will increase at the rate of 8 percent per year. The cost of the education is: $4,500 x future value factor (see Appendix Table 2, "Future Value of Annuity of $1" for n=4, i = 8%)

$$\$4,500 \times 4.506 = \$20,277$$

College costs may be decreased by doing the following:

- Try to obtain credit by examination.
- See if the college offers a special payment plan.
- Pick a low-cost college.
- Attend a 3-year degree program, thus reducing tuition fees and living costs.

Strategies for Funding College Tuition

Some financial planning ways to meet college costs are to use long-term savings plans, take advantage of financial assistance programs, and shift income to your lower-tax-bracket child.

Clearly, it helps to begin saving early, preferably as soon as the child is born. The idea is to save or invest as much money as you can and pay taxes on as little as possible. It's like buying a house: the more you've saved ahead of time, the less you'll need to borrow. Set aside or invest as much as you can, even if it's just a small amount from every paycheck.

Increase your contributions to the fund as your salary increases. Add extra cash from raises or yearly bonuses, as well as some of the money your child receives as gifts. Money that comes unexpectedly and has not been budgeted will not be missed. Also, if your older child has a part-time job, encourage him or her to put some of those earnings aside for college.

Growth Stocks and Growth Mutual Funds

Good investments in the stock market have the potential to provide better returns than insured, fixed-rate investments (such as savings accounts and CDs, which are generally FDIC insured) - if you have time to let the money ride the ups and downs of the market. This is a long-term approach to investing. And remember: What the stock market did in the past is no guarantee of how it will perform in the future.

The word to look for here is growth. When assessing the growth potential of a particular stock, consider looking for long-term appreciation rather than dividends. Growth stocks also allow you to postpone paying taxes on the capital appreciation realized until you withdraw funds.

Investing in just one or two stocks is always risky. If you'd like to participate in the growth potential of the stock market with less risk, consider a growth mutual fund. Money invested in such a fund is professionally managed and is usually diversified over many stocks, which helps reduce risk. Also, you can start investing in mutual funds with a relatively small amount of money.

U.S. Savings Bonds (Series EE)

You need only go as far as your local bank to invest in Series EE U.S. Government Savings Bonds. The face values of these bonds range from $50 to $10,000, but you buy them at only half their face value. For example, when you buy a $50 bond, you pay $25 for it. The interest rate paid on these bonds varies, and EE bonds reach face value in a maximum of 17 years.

These bonds can offer substantial tax savings if they're used to pay qualified higher education expenses. If all requirements are met, no federal income tax is due on the interest. To get this important advantage, you'll need to follow certain guidelines. Among them: The savings bonds must be issued in 1990 or later and be purchased in one or both parents' name(s)-not the child's. Married taxpayers must file a joint return. The owner must be at least 24 years old before the bond's issue date. The bonds must be redeemed by the owner in the year they're used to pay for qualified higher educational expenses. Qualified higher educational expenses generally include tuition and fees and exclude room and board. Talk to your tax advisor and the person selling you the bond to be sure you've set up the purchase properly. Also, there are income restrictions on who can take advantage of this benefit. You'll need to call the Internal Revenue Service or your tax advisor to verify your eligibility.

Life Insurance

You shouldn't purchase life insurance unless you need protection. If you have a permanent life insurance policy paid with fixed annual premiums, you generally have the option of borrowing against its cash value. Of course, the amount of cash value available to borrow against varies, depending on the specific policy. The death benefit will be decreased by the amount of the outstanding loan. The interest rate charged on such loans is often reasonable, and in many cases you can pay back the loan on a flexible schedule. Talk to your insurance representative about the advantages of life insurance when planning your child's college education.

Prepaid Tuition Plans

Many states offer various types of prepaid tuition plans, generally for students attending state schools. Residents of these states can buy a contract or bonds at a fixed price, based on the rates of college tuition today. Payments can be made in lump sums or monthly installments. The state, in turn, invests the money to earn the difference between the amount you are paying and the projected cost of tuition at the time your child reaches college age. Those who sign up are fully protected, as the state assumes all the risk of the investments. Check with your state's commission on higher education to see if a prepaid tuition plan is available where you live.

Prepaid tuition plans are not for everyone. They mostly attract middle-income families who tend to be more conservative in their investments. Lower-income families using this option may jeopardize their chances for state aid and forfeit money needed for immediate essentials. If you're interested and a plan is offered in your state, you'll want to know if it covers only the cost of tuition, or room and board, too. Also, check to see if it applies to other than state schools. Finally, confirm that your original deposit will be returned if your child attends a private or out-of-state college, is not accepted at a state school or chooses not to attend college at all.

Savings Plan Trusts

Certain states, such as Connecticut, Iowa, Kentucky, Louisiana, Massachusetts, New Hampshire, and New York, offer special college savings accounts known as savings plan trusts. These accounts allow the contributor to save as little or as much as they like on behalf of a designated beneficiary's qualified education expenses. Contributions may be as little as $25. These accounts may guarantee a minimum rate of return and generally provide favorable tax treatment. The monies from the account may be used at any qualified institution of higher learning within the United States. If you move to another state, the money in the trust goes with you. Some savings plan trusts allow monies to be used for other family member's qualified education expenses. Check with your state's commission on higher education to see if a savings plan trust is available where you live.

CDs and Bank Accounts

Bank Certificates of Deposit (CDs) and bank savings accounts are two other places to put college savings. Although CDs and bank savings accounts are generally FDIC insured, they generally offer a lower return potential than other investment vehicles and are most appropriate for those with short-term goals.

Other Avenues for Revenue

Even if you start early, it may be impossible to save enough for your child's college education. That doesn't mean, however, that college is out of the question. You have other cost-saving options available.

Student Strategies

While they may not be options you should rely on, there are some strategies students can follow to help reduce their expenses prior to entering college and once they're in college. For example, many college students, particularly those who commute to a local school, are able to work part-time and summer jobs to help subsidize their tuition or simply to earn spending money. Be aware, however, that money earned by the child prior to college may reduce his or her eligibility for financial aid. Some colleges offer cooperative education programs where students rotate study with periods of career-related work, allowing them to earn money and credits at the same time. However, it may take more than four years to complete a degree through a cooperative education program. Ask the college admissions office about the specifics of their program.

Depending on a child's scholastic ability, he or she may be able to earn college credits by taking college courses or advance placement exams while still in high school. First- and second-year college students can also take College Level Examination Program tests for course credit. These options can represent a significant savings over the cost of a full-semester course in the classroom. Check with your child's high school guidance counselor or with the college admissions office for eligibility requirements and program specifics.

Another cost-savings possibility is to attend a community college for the first year or two, then transfer to a four-year college to complete a degree. This can be a more affordable approach to receiving a degree from a prestigious institution that you may have been unable to afford for four years or which may have been more competitive to gain entrance as a freshman.

Financial Aid

Think of this in broad terms. You needn't be the sole source of funding for your child's higher education. For example, when your child receives a gift of money, put it into a college fund. When grandparents ask what to give for birthdays, suggest college fund contributions.

And don't forget the traditional sources of financial aid: scholarships, grants, work-study programs and government loans. Your child's scholastic record, course of study, athletic ability and choice of college are just a few of the variables that may affect the availability of these options.

If your family meets certain financial criteria, the federal government has a program of low-interest loans with extended payment terms. Relying too heavily on loans, however, is costly and can burden graduates with large debts just when they are working to establish their financial independence. Also, you should be aware that government financial aid programs are subject to change.

Home Equity

If you bought your home when your child was small, you're likely to have built up a significant amount of equity by the time college is in the picture. You can tap that resource for your child's education with a home-equity line of credit. Interest payments may be tax deductible.

Tax credits for education

There are two tax credits that you might be able to use to help defray education expenses.

Hope Scholarship Credit

American Opportunity Tax Credit Act of 2009 increases the Hope Scholarship Credit to 100 percent qualified tuition, fees and course materials paid by the taxpayer during the taxable year not to exceed \$2,500. The total credit does not exceed \$2,500. *Note*: The American Opportunity Tax Credit is a partially refundable tax credit detailed in Section 1004 of the American Recovery and Reinvestment Act of 2009.

Lifetime Learning Credit (LLC)

This credit will allow you to claim college expenses up to a maximum of \$2,000 per family who has incurred these expenses during the year. As long as the two credits are not used to cover the same expenses, you can take both the Hope Scholarship credit and Life Learning credit for the same student. *Note*: Both tax credits are subject to income limitations.

Tax Considerations

Even if you invest wisely and defer the tax liability on savings for your child's college fund, you'll have to come up with the taxes when you liquidate those investments. Chances are you'll be faced with taxes at a time in the future when you are likely to be in a higher tax bracket and have other additional expenses. You'll need to be sure your investments earn enough to cover the anticipated taxes.

It's important to note, too, that tax laws are constantly changing. Consult your tax advisor before you begin investing, and then check back regularly. If tax law changes negatively affect your college investments, you may want to move the money. How and when you move the funds also can affect taxes, so be sure to talk to your tax advisor first.

Determining Need Using Future Value Calculations

How much money will you need to have accumulated when your child is ready for college?

EXAMPLE 2

> Your income is $54,000. You expect to save 12 percent of your income each year for the college education of your child, which amounts to $6,480 ($54,000 x 12 percent). Therefore, each month you save $540 ($6,480/12). You expect to earn 8 percent on your savings. Your child will be going to college 10 years from now. After 10 years you will have accumulated $93,876 for your child’s education, as computed below.
>
> The future value factor (see Appendix Table 2, "Future Value of Annuity of $1") for n = 10, i = 8% is 14.487.
>
> $6,480 x 14.487 = $93,876

An interest-sensitive life insurance policy on the life of the parent may aid in education funding. Single premium life, universal life, and other interest-sensitive insurance policies sometimes allow the withdrawal of cash from the policies, instead of a loan. If the policy is taken out when the child is young, a withdrawal could be taken later to fund his or her education. Cash up to the amount paid into the policy can be withdrawn tax-free.

EXAMPLE 3

> Your child is 5 years old and you buy, in your name, a $20,000 single-premium whole life policy and let the earnings accumulate for the child's education. If the rate of return is 10 percent, your policy will be worth $62,769 in 12 years.
>
> The factor from the future value of $1 table (see Appendix Table 1) for n = 12, i = 10% is 3.139.

$$\$20{,}000 \times 3.139 = \$62{,}780$$

The annual deposits in a bank account necessary to provide for a child's education can be computed.

EXAMPLE 4

You want to send your child to college 10 years from now and will need $40,000 at that time. Assuming an 8 percent interest rate, you will have to make annual deposits of $2,761, as computed below.

[future value factor (see Appendix Table 2) for n = 10, i = 8% is 14.487]:

$$\frac{\$40{,}000}{14.487} = \$2{,}761$$

You may have to determine the monthly savings required to have sufficient funds for your child's education.

EXAMPLE 5

In today's dollars, you will need $30,000 to provide for a college education for your child. Your child will be going to college 10 years from now. You anticipate earning a net rate of return (after considering the inflation rate) of 8 percent. At present, you have $5,000 saved for your child’s education.

The growth factor for n = 10, i= 8% from Appendix Table 1, "Future Value of $1," is 2.159. Your $5,000 of savings will be worth $10,795 ten years from now, computed as follows:

$$\$5{,}000 \times 2.159 = \$10{,}795$$

Additional savings needed is: $30,000 - $10,795 = $19,205

The savings factor for n= 10, i =8% (see Appendix Table 2, "Future Value of Annuity of $1") is 14.487.

The annual savings required each year to accomplish your goal is:

$$\frac{\$19{,}205}{14.487} = \$1{,}326$$

The monthly savings is: $\frac{\$1{,}326}{12} = \$111$

You may need to know the interest rate that has to be earned on your money to have adequate funds available for your child's education.

EXAMPLE 6

You want to have \$28,000 saved in 12 years when your child will be ready for college. The annual rate of return you must earn on your money if you invest \$1,500 annually is about 8 percent as computed below.

$$\frac{\$28{,}000}{1{,}500} = 18.667 \text{ factor}$$

As per Appendix Table 2, "Future Value of Annuity of \$1," the interest rate for n = 12 and a factor of 18.667 (18.977 exactly) is about 8 percent.

Exhibit 1 illustrates how to develop a college education cost analysis/savings plan.

Exhibit 1

College Education Cost Analysis/Savings Plan

1. Estimated cost of college education Current cost of college education (including tuition, fees, room and board, books, travel and other expenses)	\$18,000
2. Projected future cost of college education adjusted for inflation Future value for 6 years until starting college at an expected inflation rate of 6 percent (Future value of current cost at 6% for 6 years= 1.419 from Table 1 in the Appendix)	\$25,542
3. Future value of a series of deposits for 6 years until starting college and expected annual return on saving and investments of 8 percent (Future value of 8% for 6 years = 7.336 from Table 2 in the Appendix)	7.336
4. Estimated annual deposit to achieve needed education fund (2 divided by 3)	\$3,482

Note: Numerous financial planning Websites offer college savings calculators and tools. An example is www.tiaa-cref.org/support/education. For example, Use the College Savings Calculator to see if you're going to have a funding gap.

Sources of Financial Aid

It is important to know sources that are available for financial aid. In examining financial aid, do the following:

- Check out federal and state government programs first, since they represent the most funding available. Note: You can use one form to apply for various federal, state, and college programs.
- Consider specialized programs directed toward certain types of people (for example, based on race or religion).
- Find out about funds available from the college itself.

Grants and Scholarships

Grants and scholarships are the best because the money is usually tax-free and never has to be repaid. These include U.S. government grants and student financial aid programs. Visit Fedmoney (www.fedmoney.org) and the College Board (www.collegeboard.org).

Other Avenues for Revenue

Even if you start early, it may be impossible to save enough for your child's college education. That doesn't mean, however, that college is out of the question. You have other cost-saving options available.

Student Strategies

While they may not be options you should rely on, there are some strategies students can follow to help reduce their expenses prior to entering college and once they're in college. For example, many college students, particularly those who commute to a local school, are able to work part-time and summer jobs to help subsidize their tuition or simply to earn spending money. Be aware, however, that money earned by the child prior to college may reduce his or her eligibility for financial aid. Some colleges offer cooperative education programs where students rotate study with periods of career-related work, allowing them to earn money and credits at the same time. However, it may take more than four years to complete a degree through a cooperative education program. Ask the college admissions office about the specifics of their program.

Depending on a child's scholastic ability, he or she may be able to earn college credits by taking college courses or advance placement exams while still in high school. First- and second-year college students can also take College Level Examination Program tests for course credit. These options can represent a significant savings over the cost of a full-semester course in the classroom. Check with your child's high school guidance counselor or with the college admissions office for eligibility requirements and program specifics.

Another cost-savings possibility is to attend a community college for the first year or two, then transfer to a four-year college to complete a degree. This can be a more affordable approach to receiving a degree from a prestigious institution that you may have been unable to afford for four years or which may have been more competitive to gain entrance as a freshman.

Financial Aid

Think of this in broad terms. You needn't be the sole source of funding for your child's higher education. For example, when your child receives a gift of money, put it into a college fund. When grandparents ask what to give for birthdays, suggest college fund contributions.

And don't forget the traditional sources of financial aid: scholarships, grants, work-study programs and government loans. Your child's scholastic record, course of study, athletic ability and choice of college are just a few of the variables that may affect the availability of these options.

If your family meets certain financial criteria, the federal government has a program of low-interest loans with extended payment terms. Relying too heavily on loans, however, is costly and can burden graduates with large debts just when they are working to establish their financial independence. Also, you should be aware that government financial aid programs are subject to change.

The federal Supplemental Educational Opportunity Grant, which is administered by colleges, offers awards ranging from $100 to $4,000 a student per year. Most students who receive need-based grants also are expected to participate in the federal Work-Study program, whereby students work part-time jobs to meet the family's remaining financial need. Eligibility for scholarships may be based on merit (academic or athletic) or financial need. Scholarships may be based on religion, nationality, race, and occupation.

Home Equity

If you bought your home when your child was small, you're likely to have built up a significant amount of equity by the time college is in the picture. You can tap that resource for your child's education with a home-equity line of credit. Interest payments may be tax deductible.

Loans

Loans come in two basic varieties: need-based, which help families who can't afford college costs; and non-need-based, designed to fill a gap when the family doesn't have available cash, but may have illiquid assets. Loans represent 59 percent of all financial aid for college.

The two most common and attractive need-based loans are the Perkins and the Stafford, both federally funded. The Perkins loan is made directly to students; parents need not co-sign this loan. Repayment begins only after students graduate, leave college or fall below half-time student status; and they have 10 years to repay the loan. With a Perkins, one pays a low interest rate (5 percent), and interest doesn't accrue until repayment begins. Stafford loans are available both as subsidized and unsubsidized loans. Subsidized loans are offered to students based on demonstrated financial need. The interest on subsidized loans is paid by the federal government while the student is in school, during the grace period, and during authorized deferment. For unsubsidized Stafford loans, students are responsible for all of the interest that accrues while the student is enrolled in school. The interest may be deferred throughout enrollment. Unpaid interest that is deferred until after graduation is capitalized (added to the loan principal). With both Perkins and Stafford loans, one must make satisfactory academic progress.

Another common, non-need-based loan is the PLUS (Parent Loans for Undergraduate Students). This loan is made to parents, not students. Parents can borrow up to the annual cost of attending college, minus any financial aid received. This loan is dependent on your credit rating, although the requirements are not as stringent as those for a mortgage. If you have a bad credit rating, such as that resulting from judgments or liens against you, you may still be eligible for a PLUS if you can find a co-signer willing to take responsibility to pay the loan if you can't. The drawback of PLUS loans is that repayment begins 60 days after you receive the money, although the repayment period can last 10 years. The interest rate is variable, tied to the short-term Treasury bill rate.

There are also private loan options such as bank lines of credit; home-equity loans; Signature Student loans, which are offered by Sallie Mae; and Excel loans, which are offered by Nellie Mae. Private loans such as these are less appealing than the unsubsidized Stafford, however, because the interest rate is usually at a premium to the prime rate, and repayment may start immediately, rather than being postponed until the student graduates.

Note: For updated information about these loans, go to www.staffordloan.com and www.studentaid.ed.gov .

Top Strategies to Maximize Aid Eligibility

1. Save money in the parent's name, not the child's name.
2. Spend down student assets and income first.
3. Pay off consumer debt, such as credit cards and car loans.
4. Maximize contributions to your retirement fund.
5. Accelerate necessary expenses, to reduce available cash.

Source: www.FinAid.org

What Are Some Private Scholarship Sources?

Private scholarship sources include your company; labor union, trade, or professional associations; advocacy groups for minorities; National Merit Scholarship Corporation (NMSC) for students who earn a high grade on an NMSC examination; civic or fraternal organization (for example, American Legion); State Department of Vocational Rehabilitation (for handicapped students); ROTC (for students who pursue careers in the military as officers); and other sponsors (for example, Boy Scouts).

Information on opportunities for minorities and women can be obtained from the *Selected List of post-Secondary Education Opportunities for Minorities and Women*, available from the Department of Health, Education and Welfare, Office of Education, Regional Office Building 3, Room 4082, Washington, DC 20202.

Social security benefits may be available for unmarried full-time students who are children of disabled or retired individuals. Inquiry may be made at any social security office. Veterans' educational benefits may be available to veterans and their immediate family.

The amount of financial aid equals the difference between college costs and the amount you can afford.

EXAMPLE 7

You expect to incur the following costs to educate your child: tuition and fees, $25,000; room and board, $20,000; books and supplies, $2,500; travel expenses, $1,800; and personal expenses, $500. You can afford to spend $15,000. The costs for your child's education and the amount of financial aid needed follows:

Tuition and fees	$25,000
Room and board	20,000
Books and supplies	2,500
Travel expenses	1,800
Personal expenses	500
Total cost	$49,800
Less: Amount you can afford to pay	15,000
Amount of financial aid required	$34,800

In estimating the financial aid required, you should

- Determine all educational costs.
- Determine your share of the educational costs.
- Determine the amount of financial aid needed, which equals (total education costs) – (your share of total costs)

Typically, you are eligible for financial aid equal to the amount you need.

To get financial aid, you have to prove that you cannot pay the total educational costs on your own. It is a mistake to think that financial aid is just for poor people.

Many middle-income families do not qualify for guaranteed student loans and other assistance programs. For these families, regular loans may be the answer.

Available loans include

- College loan with low interest, repayable after graduation
- Low-interest loan through a civic organization

- Deferred-tuition plan, if offered by the college
- Loan from a credit union
- Bank loan
- Finance company loan

Some colleges offer their own long-term loans. Usually, they are at low interest and have convenient repayment schedules.

You will have to contribute some aid toward your child's education, since financial aid sponsors require some participation on your part. The amount you have to contribute depends on a "need analysis" conducted by a national organization, for example, the College Scholarship Service (CSS) of the College Board. The confidential Financial Aid Form requires you to state your income, expenses, assets (home equity, stock owned), obligations, and number of children (including those now in college). Note unusual costs, such as those incurred by a handicapped child. The results of the "need analysis" are sent to the financial aid directors of the colleges.

From your total assets, an asset protection allowance will be subtracted (for example, $10,000 to $40,000) depending on your circumstances (for example, age). Only 12 percent of the balance is considered in computing your ability to meet college costs.

EXAMPLE 8

Your total assets are $150,000. The asset protection allowance is $20,000. What is the remaining assets figure considered in determining ability to pay for college?

The remaining assets are computed below:

Total assets	$150,000
Less: Asset protection plan	20,000
	$130,000
	x 12%
Remaining assets	$15,600

"Needs analysis" for college aid determines your eligible assets. *Tip*: Try to lower your eligible assets so as to obtain more college aid. Since the asset formula does not consider retirement accounts-IRAs, 401(k)’s, and Keoghs-put more of your money into those accounts.

The asset formula does not deduct consumer debt from total assets, but it does count mortgage debt. Therefore, obtain funds from a home equity loan to pay off your other debts.

Business assets do not count as much as personal assets in the aid formula. Thus, try to shift some personal assets to business assets.

In determining your ability to pay for your child's college education, the assets figure is divided by the number of children.

If your family is richer in assets than income, you can figure the ability to pay with a different formula, based on income only. If you use that formula, you have to renounce all forms of federal aid except guaranteed student loans.

Federal Government Programs

The federal government has several programs for helping families defray the costs of college education.

The federal aid programs include

1. *Pell Grants (Formerly call the Basic Educational Opportunity Grants*). This program has the most funds of all federal programs. Eligibility depends on a family's financial condition. Full-time and part-time students are eligible. The grants can be used for 4-year and 2-year public and private colleges as well as for vocational and technical schools. To obtain information, go to www.ed.gov .
2. *Supplemental Educational Opportunity Grant (SEOG*). The grant cannot be greater than 50 percent of the total cost of college, or 50 percent of the total aid provided. Colleges match the SEOG amount with grants from their own- funds, loans, or jobs.
3. *College work-study program*. Part-time and summer jobs are subsidized by the federal government for students in need. The government will pay up to 80 percent of the salaries.
4. *Perkins Loan*. These loans are made by the college, but 90 percent of the money comes from the federal government. Eligibility and loan amount are determined by financial aid directors. Half-time students are also eligible to apply. Repayment of principal and interest (at a very low rate) does not start until 9 months after studies end. All or a portion of the loan may be canceled if the graduate enters specified fields or the armed forces.
5. *Stafford Loans.*. These loans are available without an income ceiling. Full-time or part-time students may receive loans through financial institutions (for example, banks). The interest rate is low and repayment commences 9 to 12 months after leaving college. Students at business, trade, vocational, and technical schools are also eligible. Guaranteed student loans do have dollar limits.

You can also apply to the state for aid. The State Student Incentive Grant Program (SSIG) involves the federal government matching funds for state grants to students. Eligibility, funding, application requirements, etc., vary depending upon the state.

What are other opportunities for education savings?

The Economic Growth and Tax Relief Reconciliation Act of 2001 offered significant tax advantages for education investing. These changes affect Section 529 qualified state tuition savings programs and Education Savings Accounts (ESAs, formerly, Education IRAs). One noteworthy change: You can invest in a Section 529 college savings program and in an ESA in the same year for the same beneficiary without penalty.

529 College Savings Plans

A 529 College Savings Plan is a state-sponsored, tax-advantaged savings plan that can help families and individuals save for higher education expenses. These plans offer a number of benefits, including tax-deferred growth and federal income tax-free withdrawals when used for qualified education expenses. This federal income tax-free treatment of qualified withdrawals and other federal tax benefits are now permanent for 529 plans through the passage of the Pension Protection Act of 2006.

Savings can be used at most accredited colleges and universities in the U.S. and at many colleges abroad. Qualified expenses include tuition, fees, eligible room and board, books, supplies and required equipment for attendance at a higher education institution.

In addition to the federal tax benefit, many states offer a state income tax deduction for contributions to their plans as well as state income tax-free withdrawals for qualified expenses.

Unlike money for some other college savings vehicles, the account owner maintains control over all of the funds in the 529 College Savings Account. 529 College Savings Plans also offer gift and estate tax planning benefits. Each plan offers a variety of low-cost investment options.

Factors to Consider When Choosing a 529:

1. State tax breaks. If yours is one of the 23 states that offer an upfront deduction for state income taxes, that alone could tip the balance in favor of your state's plan. Note: Only residents of the states that offer the deduction – for example, California isn't one of them -- are eligible for the tax break. For example, a Californian who decided to use a 529 plan offered by New York or Colorado would be unable to use the upfront tax deduction they offer.
2. Fees. The plans carry various fees, including charges for enrollment and annual maintenance and sales charges on investments. Fees reduce returns, and all other things being equal, the lower the fees the better.
3. Investment choices. Typically, 529 plans offer an age-based investment option that mixes stocks, bonds and cash in proportions the managers deem appropriate based on the amount of time the child has before enrolling in college. Commonly, plans also offer all-fixed-income and all-stock options. Some states have plans that pay returns based on inflation of college costs. California and a few other states offer social investment options, which screen out the stocks of tobacco producers, distillers, gaming companies and the like.
4. Investment minimums. Most plans have minimum requirements for both initial investments and later contributions. But many 529 programs keep these investment minimums low -- $20 to $25 a month -- to accommodate middle- and lower-income families.

Coverdell Education Savings Accounts (ESAs)

The annual contribution limit for Coverdell Education Savings Accounts (ESA, formerly, an Education IRA) is $2,000 for each beneficiary. The AGI requirements for eligibility to make contributions to an ESA by married couples filing jointly will also increase. Allowed contributions will phase out for couples with AGIs from $190,000 to $220,000. (The AGI phase out range for single filers remains at $95,000 to $110,000.) Corporations, tax-exempt organizations, and other entities will be eligible to make contributions to ESAs. (Contributions to ESAs are still not tax deductible; though earnings grow tax-deferred and are generally not taxed when taken out for qualified education expenses.)

An ESA gives you complete control over where and how you invest, but it's not for everyone. If the prospective scholar hasn't used the funds by age 30, he or she can take the money, minus taxes and penalties, unless the assets are rolled over to the account of an eligible family member. Finally, these accounts are off-limits to high-income investors. Funds in an ESA can be used to pay for qualified public, private, or religious elementary or secondary school expenses.

Note: Two web sites that provide a good deal of information on the various education investment options are: (1) www.sensible-investor.com/529_plans.html and (2) www.kiplinger.com for Section 529 information and comparisons.

Exhibit 2 summarizes the main features of major college savings plans.

Exhibit 2
Features of college savings plans

	Tax Breaks	**Contribution Limit**	**Income Restrictions**	**Federal Financial Aid Impact**	**Flexibility of Funds' Use**
529 College Savings Plan	Qualified distributions tax-free. (Some states may also offer tax breaks.)	Up to total of $300,000 or more for some plans; may pay gift taxes if more than $13,000 a year.	None	Considered parent's assets, assessed up to 5.6%.	Tuition, fees, room, board, and graduate school.
529 State Prepaid Plan	Qualified distributions tax-free. (Some states may also offer tax breaks.)	Maximum varies by state, but plans cover, in general, up to five years of college costs.	None	Considered parent's assets, assessed up to 5.6%.	For most plans, tuition, fees, room and board.
Independent 529 Plan	Qualified distributions tax-free.	Maximum is based on 5 years full time	None	Considered parent's	Covers tuition and

		tuition and fees at the most expensive member college.		assets, assessed up to 5.6%.	mandatory fees.
Coverdell Education Savings Account	Qualified distributions tax-free.	Up to $2,000 a year	Yes, see current tax year phaseout levels	Considered parental asset. Generally assessed at up to 5.6%.	Post-secondary costs; K-12 costs, some computers.
Custodial Accounts	Children's Earnings: Over 18 - taxed at child's rate. Under 18-less than $850 tax-free. Next $850 taxed at child's rate. Excess of $1700 taxed at parents' highest marginal rate.	No total maximum, but may pay gift taxes if more than $13,000 a year.	None	Considered student's assets, assessed at 35%.	Anything that benefits the minor.
Savings Bonds	Interest earned is tax-free if used for qualified higher-education purposes.	Maximum annual purchase is $30,000 in Treasury Direct and $30,000 in paper bonds.	Yes, see current tax year phaseout levels	Considered parent's assets, assessed up to 5.6%.	Tuition and mandatory fees.
Taxable Accounts	Up to 15% tax on capital gains and dividend income.	Unlimited	None	Considered parent's assets, assessed up to 5.6%.	Unlimited

Sources: www.tiaa-cref.org/public/products-services/education-savings/index.html and various IRS sites.

Conclusion

Several means of providing for and evaluating the cost of your child’s education have been presented. Computations were given on savings and costs to be incurred. Numerous available sources of financial aid were also cited.

College planning websites

www.collegeboard.com

Provides useful information such as SAT, student aid and college pricing. The College Board is a not-for-profit membership association whose mission is to connect students to college success and opportunity.

www.finaid.org

The Financial Aid Information webpage. You'll find a variety of free information including a database of 180,000 private sector scholarships, fellowships, grants and loans.

www.collegesavings.org

The College Savings Plans Network (1-877-CSPN4YOU)

www.salliemae.com

Compare the features of various types of student loans.

www.Ed.gov

The U.S. Department of Education Web site, which contains the Student Guide to Financial Aid and Funding Your Education. Use their step-by-step instructions for learning about financial aid and for completing the Free Application for Federal Student Aid (FAFSA).

Chapter 5 Review Questions

1. There are many ways to put money aside to finance a college education including home equity loans. True or False?

2. Strategies for funding college tuition can include credit card loans. True or False?

3. College costs may be decreased by all EXCEPT:

A. Try to obtain credit by examination
B. See if college offers a special payment plan
C. Select a college in a foreign country
D. Pick a low cost college

Chapter 5 Review Answers

1. There are many ways to put money aside to finance a college education including home equity loans. True or False?

True is correct. There are many ways to put money aside to finance a college education including buying zero-coupon bonds (preferably with distant maturity dates), home equity loans, and hiring children in your business.

False is incorrect. One way to finance your child's education is by taking out a home equity loan. Interest is deductible on a mortgage to finance the child's education. (In contrast, with a regular loan you cannot deduct the interest).

2. Strategies for funding college tuition can include credit card loans. True or False?

True is incorrect. Strategies for funding college tuition can include many options, but credit card loans would be one of the least desirable and most risky financing option available.

False is correct. Credit card loans are risky at best.

3. College costs may be decreased by all EXCEPT:

A. Incorrect. You may cut down college costs by obtaining college credit by a special waiver examination.
B. Incorrect. Many colleges offer a special payment plan.
C. **Correct.** College costs in a foreign country may be more expensive. College costs may be decreased by doing the following: 1) Try to obtain credit by examination; 2) See if the college offers a special payment plan; 3) Pick a low-cost college.
D. Incorrect. Picking a low-cost state college can save you college costs.

Chapter 6:

The Return and Risk of Your Investments

Learning Objectives

After reading this chapter you will be able to:

- Define return and the effective annual yield.
- Define risk and assess the risk-return trade-off.
- Recognize different investment vehicles and outline their risk-return characteristics.
- Understand the different types of risk and ways to reduce overall risk.

To be successful as an investor, you need an understanding of investment risk and realistic expectations of reward. Also, an understanding of the trade-off between the expected return and the degree of risk you must assume to earn it is perhaps the most important key to successful investing. This chapter discusses:

- Return and how it is measured
- Types of risk and how to reduce risk
- How to manage uncontrollable risk, using the concept of beta
- Investment alternatives and their relationship to risk

Investing

What is Return?

Return is the investment reward. You must compare expected return for an investment with the risk. Total return on an investment equals:

(1) Periodic cash payments (current income)

(2) Appreciation (or depreciation) in value (capital gains or losses).

Current income may be bond interest, cash dividends, rent, etc. Capital gains or losses are changes in market value. A capital gain is the excess of selling price over original cost. A capital loss is the opposite.

Return is measured considering the relevant time period (holding period).

$$\text{Holding Period Return (HPR)} = \frac{\text{Current Income} + \text{Capital Gain (or loss)}}{\text{Purchase Price}}$$

EXAMPLE 1

Assume the investments in stocks X and Y for a one period ownership:

	Stock	
	X	Y
Purchase Price (Beginning of year)	\$200	\$200
Cash Dividend Received (During the year)	\$15	\$20
Sales Price (End of year)	\$217	\$186

The current income from the investment in stocks X and Y for an one-year period are \$15 and \$20, respectively. For stock X, a capital gain of \$17 (\$217 sales price - \$200 purchase price) is realized for the period. In the case of stock Y, a \$14 capital loss (\$186 sales price - \$200 purchase price) arises. The total return on each investment is computed below:

	Stock	
Return	X	Y
Cash dividend	\$15	\$20
Capital gain (loss)	17	(14)
Total return	\$32	\$6

Then,

$$\text{HPR (Stock X)} = \frac{\$15 + \$17}{\$200} = \frac{\$32}{\$200} = 16\%$$

$$\text{HPR (Stock Y)} = \frac{\$20 - \$14}{\$200} = \frac{\$6}{\$200} = 3\%$$

Effective Annual Yield

Different kinds of investments use different compounding periods. For instance, most bonds pay interest semiannually; some banks offer interest quarterly. If you want to compare investments with different compounding periods, you must put them on a relative basis. The effective annual yield, commonly referred to as *annual percentage rate* (APR), is used for this purpose:

$$APR = (1 + r/m)^m - 1.0$$

where r= the stated, nominal or quoted rate

m= the number of compounding periods per year.

EXAMPLE 2

If a bank offers 6 percent interest, compounded quarterly, the annual percentage rate is:

$$APR = (1 + .06/4)^4 - 1.0 = (1.015)^4 - 1.0 = 1.0614 - 1.0 = 0.0614 = 6.14\%$$

Thus, if one bank offered 6 percent with quarterly compounding, but another offered 6.14 percent with annual compounding, they would both be offering the same yield.

Payback Period and Money Doubling Period

To determine the number of years necessary to recover your initial investment, you can compute the payback period. Payback period equals:

$$\frac{\text{Initial Investment}}{\text{Annual Cash Inflow}}$$

EXAMPLE 3

You invest $10,000 in a security that will pay $2,000 a year for 8 years. The payback period is:

$10,000/$2,000=5 years

The shorter the payback period, the better since by recouping your money faster you can invest it for a return. Also, a shorter payback period means less risk associated with getting your money back.

Two limitations of the payback method are that it ignores the time value of money as well as cash flows received after the payback period.

To determine how many years it takes to double your money, we employ the rule of 72. Under it, dividing the number 72 by the fixed rate of return equals the number of years it takes for annual earnings from the security to double the original investment.

EXAMPLE 4

You bought a piece of property yielding an annual return of 25%. It will take 2.88 years before the investment doubles:

72/25=2.88 years

Different Risks

Any investment is susceptible to risk (uncertainty). Risk refers to the fluctuation in profit as well as to the possibility of losing some or all of your investment. You face different types of risks when selecting an investment. The irony is that they could produce unexpected returns. Risks include:

1. *Liquidity risk*. The chance that an asset may not be sold on short notice for its market value.
2. *Inflation (purchasing power) risk*. The failure of your assets to earn a return to keep up with increasing price levels. Bonds are exposed to this risk because the issuer will be paying back in cheaper dollars in inflationary times.
3. *Interest rate risk*. The variability in the value of an asset to changing interest rates and money conditions. For example, if interest rates increase (decrease), bond (stock) prices decrease (increase).
4. *Business risk*. The risk associated with changes in firm's sales. Business risk depends on factors such as demand variability, sales price variability, input price variability, and the amount of operating leverage. This may also be due to operating difficulties such as strike and technological obsolescence.
5. *Market risk*. The change in the price of a stock arising from changes in the overall stock market, irrespective of the fundamental financial condition of the company. For instance, stock prices of companies may be impacted by bull or bear markets.
6. *Default risk*. The risk that the issuing company may be unable to pay interest and/or principal when due. An example is a financially unsound company. The marketable securities with the lowest default risk are those issued by the federal government because they are backed by the full faith and credit of the U.S.
7. *Financial risk*. A type of investment risk associated with excessive debt.
8. *Industry risk*. The uncertainty of the inherent nature of the industry such as high-technology, product liability, and accidents.
9. *International and political risks*. The risks stemming from foreign operations in politically unstable foreign countries. An example is a U.S. company having a location and operations in a hostile country.
10. *Economic risk*. The negative impact of a company from economic slowdowns. For example, airlines have lower business volume in recession.
11. *Currency exchange risk*. The risk arising from the fluctuation in foreign exchange rates.
12. *Social risk*. Problems facing the company due to ethnic boycott, discrimination cases, and environmental concerns.

Risk levels vary among investments. For example, stocks experience less inflation risk than fixed income securities. Money market investments have less liquidity risk than real estate.

Ways to Reduce Risk

Diversification is usually an answer to reduction of risk. In diversification of a portfolio (e.g., stocks, bonds, real estate, savings accounts), the value of all these investments do not increase or decrease at the same time or in the same magnitude. Thus, you can protect yourself against fluctuations. One popular way of diversification is to own a share of a mutual fund, which is a portfolio of securities professionally managed by investment companies.

Besides diversifying by investments, you can diversify by maturity. For example, with securities of fixed maturity dates (for example, bonds, 1-year CD), you can have maturities spaced so the securities do not all come due at once. Thus, new principal is available to invest periodically during times of high or low interest rates.

Considerations for Risk

In looking at an investment, consider the following:

1. What types of risk are associated with it?
2. What risks can or cannot be eliminated or reduced through diversification?
3. What are the returns for those? Is the return sufficient for that risk?

In deciding your risk tolerance, consider:

- *Family status*. If you are single, you can assume more risk than if you are married with children.
- *Age*. If you are young, you can assume more risk than if you are old.
- *Personality*. If you are a nervous person, invest less in stocks or more in cash equivalents such as CDs.
- *Financial status*. If your net worth and liquidity are healthy, you can assume more investment risk.
- *Tax rate.* If your tax bracket is high, you can assume more risk when investing in stocks and bonds because the loss for each year (up to $3,000) is tax deductible.
- *Business knowledge*. If you are a sophisticated investor, you can take on more risk.
- *Occupation*. Invest defensively if you have an uncertain job or fluctuating income.

The risk/return trade-off depends in part upon your utility preferences and comfort level.

The following quiz, adapted from one prepared by the T. Rowe Price group of mutual funds, can help you discover how comfortable you are with varying degrees of risk.

Quick Test to Measure Investment Risk

Other things being equal, your risk tolerance score is a useful guide in deciding how heavily you should weigh your portfolio toward safe investments versus more risk-oriented, speculative investments.

1. You’re the winner on a TV game show. Which prize would you choose?

- $2,000 in cash (1 point).
- A 50 percent chance to win $4,000 (3 points).
- A 20 percent chance to win $10,000 (5 points).
- A 2 percent chance to win $100,000 (9 points).

2. You're down $500 in a poker game. How much more would you be willing to put up to win the $500 back?
    - More than $500 (8 points).
    - $500 (6 points)
    - $250 (4 points.
    - $100(2points).
    - Nothing—you'l1 cut your losses now (1 point).
3. A month after you invest in a stock, it suddenly goes up 15 percent. With no further information, what would you do?
    - Hold it, hoping for further gains (3 points).
    - Sell it and take your gains (1 point).
    - Buy more—it will probably go higher (4 points).
4. Your investment suddenly goes down 15 percent one month after you invest. Its fundamentals still look good. What would you do?
    - Buy more. If it looked good at the original price, it looks even better now (4 points).
    - Hold on and wait for it to come back (3 points).
    - Sell it to avoid losing even more (1 point).
5. You're a key employee in a start-up company. You can choose one of two ways to take your year-end bonus. Which would you pick?
    - 1,500 in cash (1 point).
    - Company stock options that could bring you $15,000 next year if the company succeeds, but will be worthless if it fails (5 points).

Your total score: ________

Scoring

5-18 points. You are a more conservative investor. You prefer to minimize financial risks. The lower your score, the more cautious you are. When you choose investments, look for high credit ratings, well-established records, and an orientation toward stability. In stocks, bonds, and real estate, look for a focus on income.

19-30 points. You are a less conservative investor. You are willing to take more chances in pursuit of greater rewards. The higher your score, the bolder you are. When you invest, look for high overall returns. You may want to consider bonds with higher yields and lower credit ratings, the stocks of newer companies, and real estate investments that use mortgage debt.

The Risk-Return Trade-Off

Risk and return are the primary ingredients in investment choices. Expected return must be compared to risk. As risk increases, so must the return to compensate for the greater uncertainty. The risk-return trade-off is crucial. A new business may involve a lot of risk. Therefore, a higher return is required. On the other hand, U.S. T-bills have minimal risk so a low return is appropriate.

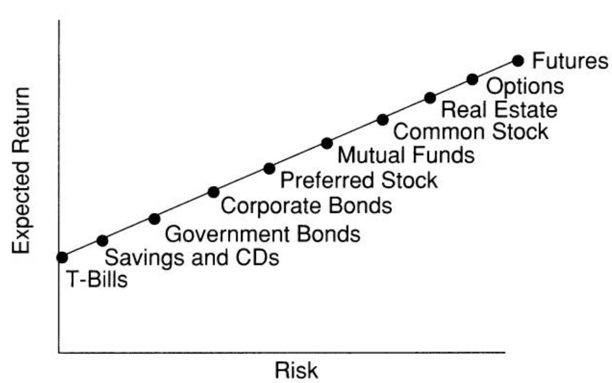
Risk (uncertainty) creates potential higher return. You should seek the highest possible return at the risk level you are willing to accept.

During the period 1934-2000, common stocks produced returns averaging 10.3% annually with a 20.6% risk. Small company stocks return 12.2% with a higher risk 35.0%. Long-term bonds have averaged 5.5% annually with an 8.5% risk. Short-term Treasury bills averaged 3.7% annually with a meager 3.3% risk. These returns illustrate the risk/return trade-off.

The trade-off is on average, not each case. As an investor, you need to evaluate each investment, comparing expected returns with the risks. The trade-off is also a warning flag. Higher potential returns flag higher risks, even if the risks are not apparent at first.

In general, the risk-return characteristics of each of the major investment instruments can be displayed in a risk-return graph, as shown in Exhibit 1. Although the locations on the diagram are only approximate, it should be apparent that you can pick from a wide variety of vehicles, each having certain risk-return combinations.

Exhibit 1
Risk-Return Tradeoffs for Various Investment Vehicles



What is the Meaning of Beta?

Total risk of a security equals = unsystematic risk + systematic risk

Unsystematic risk is specific to the company and reduced by *diversification*. Examples are union problems and financial difficulties of the firm. When additional securities are added to the portfolio, we spread the risk and the unsystematic risk of the portfolio decreases.

Nondiversifiable risk (systematic), also called *market risk*, emanates from uncontrollable forces and is therefore not unique to the stock. Examples are inflation and interest rate changes. Systematic risk relates to the reaction of specific stocks (or portfolios) to changes in the general market.

In sum, the *total* risk of each stock is irrelevant. It is the systematic component of that total instability that is relevant for valuation. It is the only element of total risk that investors will get paid to assume, which is measured by *beta*. Beta aids in estimating how much the security will rise or fall if you know which direction the market will go. It assists in determining risk and expected return.

There is a relationship between a security's expected (or required return) and its beta (see Exhibit 2). The formula to determine a security's expected return follows.

Expected return = risk-free rate + beta (market return - risk-free rate)
= risk-free rate + beta x market risk premium

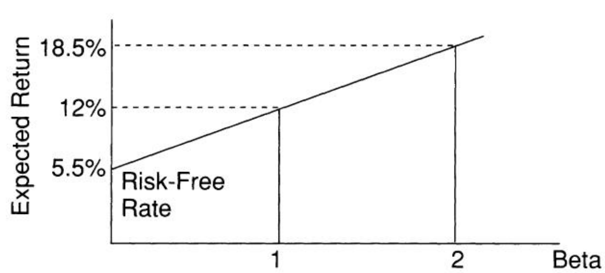
where the risk-free rate equals the rate on a security like a T-bill and expected market return (e.g., Standard & Poor's 500 Stock Composite Index) less the risk-free rate is called the *market risk premium*.

The market risk premium is the extra return exceeding that offered on T-bill, to justify for taking on certain risk expressed by *beta*. The relevant expression of risk is the risk of the individual security, or its beta. The higher a stock's beta, the greater the return expected (or required) by the investor.

EXAMPLE 5

Assume a risk-free rate =5.5% and expected market return = 12%. If a beta is 2.0, the risk premium equals: 2.0 x (12% - 5.5%) = 2.0 x 6.5% = 13%. The investor would want an extra 13% (risk premium) on the security besides the risk-free return of 5.5%. Hence, the expected return is 5.5% + 13% = 18.5%

Exhibit 2
Risk and Return



How to Determine Beta

Beta is a security's volatility compared to an average security. It measures a security's return over time to the overall market. For example, if a company's beta is 1.5, it means that if the stock market rises 10%, the company's common stock increases 15%; if the market falls 10%, the company goes down 15%. A guideline on reading beta follows:

Beta	*Meaning*
0	The security's return is independent of the market. An example is a risk-free security (e.g., T-Bill).
0.5	The security is half as volatile as the market.
1.0	The security is volatile or risky as the market (i.e., average risk). This is the beta value of the market portfolio (e.g., Standard & Poor's 500).
2.0	The security is twice as volatile or risky, as the market.

Betas for stocks are available in investment newsletters and periodicals.

Betas for some selected corporations

Company	November 2013
Boeing (BA)	1.26
Google (GOOG)	0.96
Toyota (TM)	0.79
Nordstrom (JWN)	1.5
Intel (INTC)	0.97
Wal Mart (WMT)	0.38

EXAMPLE 6

XYZ stock returned 10%. The risk-free rate on T-bill is 6%, market return is 12%, and the company's beta is 1.3. What is the expected return?

Expected (required) return = 6% + 1.3 (12% - 6%) = 6% + 7.8% = 13.8%

Because the actual return (10%) is below the required return (13.8%), you would not want to buy the stock.

EXAMPLE 7

The higher a stock's beta, the greater the return expected (or demanded) by the investor, which is shown as follows:

Stock	Beta	Required return
Mobil	.85	6% + .85(12% - 6%) = 11.1%
Bristol-Meyers	1.0	6% + 1.0(12% - 6%) = 12%
Neiman-Marcus	1.65	6% + 1.65(12% - 6%) = 15.9%

Building an Optimal Portfolio

If you wish to obtain optimal risk reduction through the portfolio effect, it should make its next investment in an investment that correlates negatively to the current portfolio holdings. Risk is increased when the investment's returns are positively (directly) correlated with other investments in your portfolio; that is, risk increases when returns on all investments rise or fall together. Consequently, the overall risk is decreased when investments have low variability and are negatively correlated (the diversification effect). One approach is a mutual fund consisting of a portfolio that is well diversified and professionally managed.

Investment Alternatives and the Risk-Return Trade-Off

Investment alternatives differ as to both return and risk. Exhibit 3 summarizes major types of investments and their return/risk characteristics. The rankings are the authors' opinions. The ranking is for a typical investment within the category. However, there are many variations within each class.

Exhibit 3
Types of Investments and Their Return/Risk Characteristics

Investment Type	*Total Return*	*Liquidity Risk*	*Inflation Risk*	*Interest Power Risk*	*Business Rate Risk*	*Market Risk*
Savings accounts, money market accounts, CDs	Low	None	High	High	Very Low or None	None
Savings bonds, Treasury securities	Low	Low	High	High	Very Low	None
High-grade corporate and municipal bonds	Average	Low	Average	Average	Low	Average
Balanced mutual funds, high-grade preferred stock	High	Very Low	Low	Average	Very Low	Average
High-grade common stocks, growth funds	High	Very Low	Low	Average	Very Low	Average
Real estate	High-Very High	High	Average	High	Low-Average	Low
Speculative stocks and bonds	High	Average	High	High	High	High
Options, futures, and derivatives	Very High	Very High	Low-Average	Low-High	Very High	Very High
Precious metals, stones, and collectibles	High-Very High	Average	Average	Average	Average-High	Average

Chapter 6 Review Questions

1. Total return on an investment means current income. True or False?

2. If a stock's dividend income for one year is $15, purchase price is $200, and sales price is $217, the holding period return on the investment (HPR) is:

A. 7.5%
B. 8.5%
C. 16%
D. 108.5%

3. How many years does it take to recover your initial investment if you invest $10,000 in a security that will pay $2,000 a year for 8 years?

A. 5 years
B. 8 years
C. 0.2 years
D. 10 years

4. The risk that securities CANNOT be sold at a reasonable price on short notice is called

A. Liquidity risk.
B. Default risk.
C. Interest-rate risk.
D. Purchasing-power risk.

5. When purchasing temporary investments, which one of the following best describes the risk associated with the ability to sell the investment in a short period of time without significant price concessions?

A. Interest-rate risk.
B. Purchasing-power risk.
C. Liquidity risk.
D. Financial risk.

6. The type of risk that is NOT diversifiable and even affects the value of a portfolio is

A. Market risk.
B. Purchasing-power risk.
C. Nonmarket risk.
D. Interest-rate risk.

7. Business risk is the risk inherent in a firm's operations. It includes financial risk. True or False?

8. The marketable securities with the least amount of default risk are

A. Federal government agency securities.
B. Repurchase agreements.
C. U.S. Treasury securities.
D. Commercial paper.

9. A company uses portfolio theory to develop its investment portfolio. If you wish to obtain optimal risk reduction through the portfolio effect, it should make its next investment in

A. An investment that correlates negatively to the current portfolio holdings.
B. An investment that is uncorrelated to the current portfolio holdings.
C. An investment that is highly correlated to the current portfolio holdings.
D. An investment that is perfectly correlated to the current portfolio holdings.

10. The relevant risk of a security is its

A. Company-specific risk.
B. Systematic risk.
C. Diversifiable risk.
D. Total risk.

11. Which of the following classes of securities are listed in order from lowest risk/opportunity for return to highest risk/opportunity for return?

A. Corporate income bonds; corporate mortgage bonds; convertible preferred stock; subordinated debentures.
B. Common stock; corporate first mortgage bonds; corporate second mortgage bonds; corporate income bonds.
C. U.S. Treasury bonds; corporate first mortgage bonds; corporate income bonds; preferred stock.
D. Preferred stock; common stock; corporate mortgage bonds; corporate debentures.

12. The difference between the required rate of return on a given risky investment and that on a riskless investment with the same expected return is the

A. Risk premium.
B. Coefficient of variation.
C. Standard deviation.
D. Beta coefficient.

13. A measure that describes the risk of an investment relative to other investments in general is the

A. Beta coefficient.
B. Coefficient of variation.
C. Standard deviation.
D. Expected return.

14. If the return on the market portfolio is 10% and the risk-free rate is 5%, what is the effect on a company's required rate of return on its stock of an increase in the beta coefficient from 1.2 to 1.5?

A. 1.5% increase
B. 3% increase
C. No change
D. 1.5% decrease

15. The betas and expected returns for three investments being considered by Sky Inc. are: Investment A has a beta of 1.4 and an expected return of 12%; Investment B has a beta of 0.8 and an expected return of 11%; and Investment C has a beta of 1.5 and an expected return of 13%. The return on the market is 11% and the risk-free rate is 6%. Which investments should the management of Sky make?

A. B only.
B. B and C only.
C. A and B only.
D. A, B, and C.

Chapter 6 Review Questions

1. Total return on an investment means current income. True or False?

True is incorrect. This answer leaves out capital gains or losses.

False is correct. Total return on an investment equals: Periodic cash payments (current income); and Appreciation (or depreciation) in value (capital gains or losses).

2. If a stock's dividend income for one year is $15, purchase price is $200, and sales price is $217, the holding period return on the investment (HPR) is:

A. Incorrect. This only accounts for a stock's dividend income: HPR = $15/$200 = 7.5%.
B. Incorrect. This only counts a capital gain: HPR = ($217-$200)/$200 = $17 / $200 = 8.5%.
C. **Correct.** The holding period return on the investment is: HPR = ($15+($217-$200))/$200 = $32/$200 = 16%.
D. Incorrect. This is sales price divided by purchase price: HPR = $217/$200 = 108.5%

3. How many years does it take to recover your initial investment if you invest $10,000 in a security that will pay $2,000 a year for 8 years?

A. **Correct.** The payback period is: $10,000/$2,000=5 years
B. Incorrect. This is the investment's life.
C. Incorrect. This is not the payback period. This is $2,000/$10,000 = 0.2.
D. Incorrect. The payback period should be: $10,000/$2,000=5 years

4. The risk that securities CANNOT be sold at a reasonable price on short notice is called

A. **Correct.** An asset is liquid if it can be converted to cash on short notice. Liquidity (marketability) risk is the risk that assets cannot be sold at a reasonable price on short notice. If an asset is not liquid, investors will require a higher return than for a liquid asset. The difference is the liquidity premium.
B. Incorrect. Default risk is the risk that a borrower will not pay the interest or principal on a loan.
C. Incorrect. Interest-rate risk is the risk to which investors are exposed because of changing interest rates.
D. Incorrect. Purchasing-power risk is the risk that inflation will reduce the purchasing power of a given sum of money.

5. When purchasing temporary investments, which one of the following best describes the risk associated with the ability to sell the investment in a short period of time without significant price concessions?

A. Incorrect. Interest-rate risk is caused by fluctuations in the value of an asset as interest rates change. Its components are price risk and reinvestment-rate risk.
B. Incorrect. Purchasing-power risk is the risk that a general rise in the price level (inflation) will reduce what can be purchased with a fixed sum of money.
C. **Correct.** Liquidity risk is the possibility that an asset cannot be sold on short notice for its market value. If an asset must be sold at a high discount, it is said to have a substantial amount of liquidity risk.
D. Incorrect. Financial risk is the risk borne by shareholders, in excess of basic business risk, that arises from use of financial leverage (issuance of fixed income securities, i.e., debt and preferred stock).

6. The type of risk that is NOT diversifiable and even affects the value of a portfolio is

A. **Correct.** Prices of all stocks, even the value of portfolios, are correlated to some degree with broad swings in the stock market. Market risk is the risk that changes in a stock's price will result from changes in the stock market as a whole. Market risk is commonly referred to as nondiversifiable or systematic risk.
B. Incorrect. Purchasing-power risk is the risk that a general rise in the price level will reduce the quantity of goods that can be purchased with a fixed sum of money.
C. Incorrect. Nonmarket risk is the risk that is influenced by an individual firm's policies and decisions. Nonmarket risk is diversifiable because it is specific to each firm.
D. Incorrect. Interest-rate risk is the risk that the value of an asset will fluctuate due to changes in the interest rate.

7. Business risk is the risk inherent in a firm's operations. It includes financial risk. True or False?

True is incorrect. Business risk depends on factors such as demand variability, sales price variability, input price variability, and the amount of operating leverage.

False is correct. Business risk is the risk of fluctuations in operating income when the firm uses no debt. Financial leverage affects financial risk and is not a factor affecting business risk.

8. The marketable securities with the least amount of default risk are

A. Incorrect. Securities issued by a federal agency are first backed by that agency and secondarily by the U.S. government.
B. Incorrect. Repurchase agreements could become worthless if the organization agreeing to make the repurchased goes bankrupt.
C. **Correct.** The marketable securities with the lowest default risk are those issued by the federal government because they are backed by the full faith and credit of the U.S. Agency securities are issued by agencies and corporations created by the federal government, such as the Federal Housing Administration. They are backed by a secondary promise form the government.
D. Incorrect. Commercial paper is unsecured.

9. A company uses portfolio theory to develop its investment portfolio. If you wish to obtain optimal risk reduction through the portfolio effect, it should make its next investment in

A. **Correct.** A common general definition is that risk is an investment with an unknown outcome but a known probability distribution of returns (a known mean and standard deviation). An increase in the standard deviation (variability) of returns is synonymous with an increase in the riskiness of a project. Risk is increased when the investment's returns are positively (directly) correlated with other investments in your portfolio; that is, risk increases when returns on all investments rise or fall together. Consequently, the overall risk is decreased when investments have low variability and are negatively correlated (the diversification effect).
B. Incorrect. Uncorrelated investments are more risky than negatively correlated investments.
C. Incorrect. Highly correlated investments such as stocks in the same industry are very risky.
D. Incorrect. Perfectly correlated stocks have the exactly same amount of risk because they are like the same stock.

10. The relevant risk of a security is its

A. Incorrect. Company-specific risk can be eliminated through portfolio diversification.
B. **Correct.** The relevant risk of a security is its contribution to the portfolio's risk. It is the risk that cannot be eliminated through diversification. The relevant risk results from factors, such as recession, inflation, and high interest rates that affect all stocks.
C. Incorrect. Diversifiable risk can be eliminated through diversification.
D. Incorrect. Only the systematic component of total risk is relevant to security valuation.

11. Which of the following classes of securities are listed in order from lowest risk/opportunity for return to highest risk/opportunity for return?

A. Incorrect. The proper listing is mortgage bonds, subordinated debentures, income bonds, and preferred stock. Debentures are unsecured debt instruments. Their holders have enforceable claims against the issuer even if no income is earned or dividends declared.
B. Incorrect. The proper listing is first mortgage bonds, second mortgage bonds, income bonds, and common stock. The second mortgage bonds are secured, albeit junior, claims.
C. **Correct.** The general principle is that risk and return are directly correlated. U.S. Treasury securities are backed by the full faith and credit of the federal government and are therefore the least risky form of investment. However, their return is correspondingly lower. Corporate first mortgage bonds are less risky than income bonds or stock because they are secured by specific property. In the event of default, the bondholders can have the property sold to satisfy their claims. Holders of first mortgages have rights paramount to those of any other parties, such as holders of second mortgages. Income bonds pay interest only in the event the corporation earns income. Thus, holders of income bonds have less risk than shareholders because meeting the condition makes payment of interest mandatory. Preferred shareholders receive dividends only if they are declared, and the directors usually have complete discretion in this matter. Also, shareholders have claims junior to those of debt-holders if the enterprise is liquidated.
D. Incorrect. The proper listing is mortgage bonds, debentures, preferred stock, and common stock. Holders of common stock cannot receive dividends unless the holders of preferred stock receive the stipulated periodic percentage return.

12. The difference between the required rate of return on a given risky investment and that on a riskless investment with the same expected return is the

A. **Correct.** Expected return = risk-free rate + beta x (market risk premium). The market risk premium is the amount above the risk-free rate that will induce investment in the market. The beta coefficient of an individual stock is the correlation between the price volatility of the stock market and that of the price of the individual stock.
B. Incorrect. The coefficient of variation is the standard deviation of an investment's returns divided by the average return.
C. Incorrect. The standard deviation is a measure of the variability of an investment's returns.
D. Incorrect. The beta coefficient measures the sensitivity of the investment's returns to market volatility.

13. A measure that describes the risk of an investment relative to other investments in general is the

A. **Correct.** The required rate of return on equity capital is the risk-free rate, plus the product of the market risk premium times the beta coefficient. The market risk premium is the amount above the risk-free rate that will induce investment in the market. The beta coefficient of an individual share is the correlation between the volatility (price variation) of the stock market and that of the price of the individual share. For example, if an individual share goes up 15% and the market only 10%, beta is 1.5.
B. Incorrect. The coefficient of variation compares risk with expected return (standard deviation ÷ expected return).
C. Incorrect. Standard deviation measures dispersion (risk) of asset returns.
D. Incorrect. Expected return does not describe risk.

14. If the return on the market portfolio is 10% and the risk-free rate is 5%, what is the effect on a company's required rate of return on its stock of an increase in the beta coefficient from 1.2 to 1.5?

A. **Correct.** To estimate the required rate of return on equity, the equation adds the risk-free rate (determined by government securities) to the product of the beta coefficient (a measure of the firm's risk) and the difference between the market return and the risk-free rate. Expected return = risk-free rate + beta x (market risk premium). Thus, given a beta of 1.2, the required rate of return is 11% [5% + 1.2 (10% - 5%)]. At a beta of 1.5, the required rate of return is 12.5% [5% + 1.5 (10% - 5%)].
B. Incorrect. 3% equals the market return times the increase in the beta.
C. Incorrect. When there is a change in the beta coefficient, there will be a change in the required return.
D. Incorrect. The required return increases by 1.5%. Thus, given a beta of 1.2, the required rate of return is 11% [5% + 1.2 (10% - 5%)]. At a beta of 1.5, the required rate of return is 12.5% [5% + 1.5 (10% - 5%)].

15. The betas and expected returns for three investments being considered by Sky Inc. are: Investment A has a beta of 1.4 and an expected return of 12%; Investment B has a beta of 0.8 and an expected return of 11%; and Investment C has a beta of 1.5 and an expected return of 13%. The return on the market is 11% and the risk-free rate is 6%. Which investments should the management of Sky make?

A. **Correct.** The basic equation for the CAPM is rj = rf + b(rm - rf). In words, Expected return (or required) = risk-free rate + beta x (market risk premium) where rj = the expected (or required) return on security j; rf = the risk-free rate on a security such as a T-bill; rm = the expected return on the market portfolio (such as Standard and Poor's 500 Stock Composite Index or Dow Jones 30 Industrials); and b = beta, an index of systematic (nondiversifiable, noncontrollable) risk. Thus, the required rates of return for A, B, and C are 13% [6% + (1.4 x 5%)], 10% [6% + (.8 x 5%)], and 13.5% [6% + (1.5 x 5%)], respectively. A should be rejected (r is greater than the 12%

expected return). B should be accepted (r is less than the 11% expected return). C should be rejected (r is greater than the 13% expected return).

B. Incorrect. The required rates of return for A and C exceed their expected returns

C. Incorrect. The required rate for C exceeds its expected return.

D. Incorrect. The expected returns are low than the required rates of return for A and C.

Chapter 7:

Banking and Cash Management

Learning Objectives

After reading this chapter you will be able to:

- Identify attributes of different short-terms investment vehicles.
- Identify different banking tools available.
- Recognize some of the banking regulations to help protect accounts.

The bank is the one institution that has the facilities and services to handle most people's day-to-day financial transactions. Selecting a place to do banking is an important decision, along with selecting the best types of bank account.

Banking

Selecting a Bank

Selecting a place to do banking should be considered a long-term decision, since once you choose a bank, chances are either you stick to the bank selected or it is increasingly difficult to switch to another bank for all the resulting inconveniences. So be aware: When you are shopping for a bank, consider the following elements in terms of quality of service and convenience:

1. *Comparison of rates and fees*. Compare rates on savings and checking accounts and fees (such as service charges, the cost of cashier's checks and money order fees). A free checking account is harder to come by these days as banks restructure their fees in the wake of new banking regulations. But some large banks waive the monthly service fee on checking accounts for people who sign up for direct deposit or make five or more debit-card purchases each month. If

you do most of your banking online, an Internet-based checking account may be the best option. And online banks typically offer higher interest rates and fewer banking fees than traditional banks.

2. *Clarity of information*. Can you understand the bank's handouts and applications? They should describe in readable fashion the account rules and the way rates and fees change as your balance rises and falls?
3. *Convenient hours and services*. Sometimes convenience is probably the most important factor in your decision. Can the bank accommodate direct deposit of your paycheck? Does it offer evening and weekend hours? Do they open more teller windows whenever there is a long line? Does the bank provide on-line banking service? Do I need easy access to bank branches or ATMs for deposits or withdrawals? Am I more comfortable banking online? How often do I use my debit card? If mobile banking is important to you, you might want to stick with a larger bank, which is more likely to offer the latest mobile-banking services like smartphone applications that allow person-to-person transactions, Many banks offer apps for the iPhone or Android phones. They let you deposit checks simply by taking a picture of them.
4. *Quick crediting of deposits*. In this age of electronic transactions and check clearing, you should have access to routine deposits almost immediately. Can the bank give you a quick credit on your deposit for immediate use?
5. *Good deals on loans*. Many banks provide preference on credit applications or lower loan rates to regular customers or to those with large accounts. This sort of treatment can be invaluable, since once you go beyond credit cards and installment loans, the lending process is highly subjective. Does the bank offer an automatic increase in overdraft privileges without your asking for them?
6. *Extra free services*. Some banks offer extra services free of charge to regular or special customers, such as free notary services, no-charge money orders, etc.
7. *Easy access to problem solvers*. If you have ever had an emergency--a deposit that was not posted, a stolen checkbook, a missing loan payment, a bungled automatic teller transaction--did somebody resolve the problem quickly and courteously? A good bank anticipates these kinds of problems and trains its staff to handle them.

Getting the Most from Your Bank

It is ironic that the banks you are dealing with make money off your lack of information about banking services. For example, if you do not read the fine print regarding the number of checks you can write on your money market account in a month, you will probably be tapped with a $5 to $10 service charge. You may also find your interest for that month dwindled to the savings passbook rate of, say, 6%. Here are two questions you should ask to get the most out of your bank.

Are you paying too much in check charges?

Fee structures vary drastically between banks. Before opening a checking account, ask for bank service charge brochures. Comparison shopping could make the difference. Investigate savings and loan, brokerage house, and credit union alternatives. Next, assess your check-writing habits. If you are a frequent check-writer, you will be better off selecting a flat monthly service fee instead of per check charges. Note that some bank officers may give general financial advice.

Some banks link the balances on your checking, savings, and money market accounts to your free checking privileges. Most banks give you free checking if you keep a certain minimum monthly amount on your deposit.

Do you have the right checking account?

There are basically five types available:

Regular Checking Accounts. You can write as many checks as you want, make any number of deposits, keep any kind of balance, but you won't earn any interest. Usually, there is a monthly service charge. Some banks will allow deposit in other accounts, such as savings or certificates of deposit (CDs), to count toward your minimum.

Passbook Savings Account. It permits frequent deposit or withdrawal of funds. It has the fewest restrictions and is the simplest for savers to use. Low minimum-balance requirements make this a top choice for small savers.

NOW (Negotiable Order of Withdrawal) Accounts. You have restricted check-writing privileges, but earn fixed interest at the savings passbook rate. You have to maintain a specified minimum balance. Otherwise, you may lose interest.

Super NOW Accounts. You can write any number of checks, but you must keep the bank's predetermined minimum balance in order to earn interest and avoid service charges. Interest fluctuates but is higher than the savings passbook rate and lower than the money market rate. Consider whether it pays to keep the minimum balance in NOW or Super NOW accounts to avoid service charges or get better rates elsewhere, such as CDs or money market mutual funds.

Money Market Deposit Accounts (MMDA). You must keep the bank's predetermined minimum balance. There are also restrictions on the number of checks you can write. However, you will earn a higher interest rate than with any other kind of checking account. If you can afford to tie up $1,000 or more in a NOW account, consider putting your cash in a MMDA, where all of it will earn market rates, and transferring only what you need each month to your regular checking account. Note that the single most important advantage of money market accounts over money market mutual funds, other than its competitive interest rate, is the insurance protection of up to $250,000 per depositor. Savings and loan institutions failing and the problems with banks indicate that it is important not to exceed the insured amount level of $250,000. Also a depositor can restructure accounts to obtain additional insurance such as having a joint account with a child.

Selecting an Account

Do comparison shopping. Choose an arrangement based on your check-writing habits and ability to keep a certain minimum balance. You may want to decide on a combination that serves you best. To do so, first estimate how much you expect to leave in your account as a minimum. Then estimate the interest you would earn and the fees you would pay.

Try to avoid overdrafts. It is very costly to write a bad check. You will be charged $10 or more per each check bounced and possible penalties from the check's payee. Also, too many bounced checks can have your account closed and create a bad credit rating. Some states, such as New York, impose stringent penalties. Note: an individual should never send out a check hoping to make a later deposit to cover it before the check clears. This is a risky procedure. Only mail a check when the funds are already in the account.

The possible ways to avoid overdrafts include:

- Keep scrupulous records and, at the end of each month, balance your checkbook.
- Open an overdraft line of credit although the interest rate is high and there is often an advance fee.

Obtain immediate credit on deposits. Banks usually slap a "hold" on the checks drawn on a bank other than your own. That means you do not have use of your own deposit. Ask for immediate credit on all of your deposits. Here are some pointers for achieving this goal.

- Consider establishing your checking account at the bank on which your paycheck is drawn. The reason is that banks put holds only on checks from other banks.
- Apply for immediate credit privileges by getting some sort of written authorization of preapproval.
- Ask that any holds be placed on your savings account rather than on your checking account so that at least you will be able to write checks during the hold period.

Try to earn more interest on your savings. You can maximize your interest earnings by

- Only investing money you can afford to do without, no matter how attractive the interest rate. Early withdrawals can cost a lot in terms of penalties or lost interest.
- Keeping on top of interest fluctuations.
- Shopping around. When comparison shopping, ask if interest is compounded and how often.

Get a faster loan at a cheaper rate. Be friendly with your loan officer who understands your lending needs and has the authority to approve your request. Schedule an appointment and arrive prepared.

Ask yourself the following questions:

- How much do you want to borrow?
- Why do you want this loan?
- Over what period of time would you repay it?
- From what sources would you repay it?

Fill out the loan application form neatly and back it up with all the necessary evidence of your sources of income, credit history, and net worth. Spend less time asking for money and more time proving that you have the ability and the willingness to repay it. Have your accountant assist you in preparing the needed financial information on a loan application so it is professionally done. Do not be afraid to ask for a rate reduction or to negotiate for better terms. Many banks offer a better rate if you agree to their automatic loan deduction plan from your deposit account.

Consider opening up a personal line of credit. It is one little-advertised loan program you should seek out, since they can easily slice your borrowing costs by 6 percent or more. A personal line of credit can be secured by the equity you have built up in your home. These mortgage-secured lines of credit are increasingly popular for the following reasons:

- Easier to get, based on your home's equity and ability to pay.
- The only type of credit line available to most consumers in sizable dollar amounts for long time periods-sometimes up to 10 years.
- The interest charged is generally less than on unsecured lines of credit.
- Interest is tax deductible when incurred on a home loan.

For more details about a home equity line, refer to Chapter 8 (How to Take On and Manage Debt). Parents with college-bound children will find this an excellent alternative for financing tuition over a four-year period.

Don't waste time with your bank. Try the following to reduce the time you spend in bank lobbies:

- Use electronic banking via the Internet.
- Visit the bank during slack periods.
- Use automatic teller machines (ATMs) as often as possible and for as many transactions as possible.

Get better service overall. Get to know a banker, not a bank. Introduce yourself to the branch manager, loan officer, or anybody higher. These people have the clout to waive fees, bend rules, approve immediate credit on deposits, and approve loan requests.

Are Your Deposits Safe?

Your checking and savings deposits are safe for an amount up to $250,000 if they are deposited in federally insured financial institutions (see below). Federal regulations set forth several ownership categories for personal accounts.

Federal Agency	Insured Institutions	Amount of Insurance
Federal Deposit Insurance Corp.(FDIC)	Commercial banks and savings bank	$250,000 per depositor
Federal Deposit Insurance Corporation (FDIC)	Savings and loan associations	$250,000 per depositor
National Credit Union Administration	Federal and state-charted credit unions depositors in share accounts	$250,000 per depositor

Note: The Emergency Economic Stabilization Act of 2008 increased the insurance coverage on all accounts up to $250,000.

Reconciling Your Checking Account

Each month when the bank sends you a statement showing your bank balance, you should compare it with your checkbook balance. The two balances should match. In other words, the checkbook balance must be the same as the bank balance at the end of the period. Reconciling differences relate to (1) items shown on your checkbook but not on your bank statement and (2) items shown on your bank statement but not on your checkbook. Note a certified check that is still outstanding should not be deducted because the bank knows about it.

To reconcile the bank balance:

1. Deduct: outstanding checks (checks not cleared).
2. Add: deposits in transit (not yet received at bank).
3. Add: Your account was charged in error with someone else's check..
4. Deduct: Your account was credited in error with someone else's deposit.

To reconcile checkbook balance:

1. Deduct service charge.
2. Add collections made by the bank.
3. Deduct a check you received and deposited that "bounced" because of insufficient funds.
4. Deduct automatic charges (e.g., monthly insurance and contribution deductions).
5. Add: The deficiency that resulted from entering a deposit in the checkbook that was lower than the actual amount you entered on the deposit slip (assume deposit slip is correct).
6. Deduct: The deficiency that resulted from entering a check that was less than the actual amount of the check (assume the check was correct).

Upon receiving the bank statement, review each entry and check off, on the proper stub, each returned check. Add or deduct necessary items as illustrated below.

EXAMPLE 1

Your bank statement shows a balance of $348.50 on September 30, 20A. Your checkbook balance at the same date is $277.00. Check # 325 for $45.20 and check # 333 for $29.30 are not enclosed with your statement. The bank has deducted a service charge of $3.00. Your statement can be reconciled as follows:

September 30, 20A			*September 30, 20A*	
Bank balance		$348.50	Checkbook balance	$277.00
Less: outstanding checks:			Less: service charge	3
#325	$45.20			
333	29.30	74.50		
Adjusted bank balance		$274.00	Adjusted checkbook balance	$274.00

How to Determine the Saving Account Balance for Interest Calculations

Banks calculate interest on depositors' account balances in four different ways: FIFO (first in, first out), LIFO (last in, first out), minimum-balance, and DDDW (day-of-deposit-to-day-of-withdrawal). Each method has advantages and disadvantages to a depositor.

FIFO (first-in, first-out) Method

Under the FIFO method, withdrawals are first deducted from the balance at the start of the interest period and then, if the balance is not sufficient, from later deposits. The method works to the disadvantage of savers, since interest is automatically lost on money on deposit early in the interest period if it is withdrawn.

LIFO (last-in, first-out) Method

Under this method, withdrawals are first deducted from the most recent deposits and then from the less recent ones, and so on. It does not penalize depositors as much as the FIFO method does, but it is still not a fair representation of actual funds on deposit during the period.

DDDW (day-of-deposit-to-day-of-withdrawal) Method

The DDDW method, also called the actual balance method, is the fairest method to the saver. Under the method, each saver earns interest for the total number of days money was actually in the account.

When withdrawals occur, interest is earned for the number of days the money remained before the day of withdrawal.

Average Daily Balance Method

This method may not be as attractive as DDDW because it pays interest on the average balance in your account.

Minimum Balance Method

The minimum (low) balance method pays interest on the minimum balance in the account. This method, which discourages withdrawals, is the most unprofitable for the depositor.

The following problem illustrates the interest calculations for each of the four methods discussed above.

EXAMPLE 2

The following activities have taken place during the 90 day period:

Day	Deposit (Withdrawal)	Balance
1	1000	1000
30	1000	2000
60	-800	1200
90	Closing	1200

With a 6% stated (nominal) interest rate, interest under FIFO, LIFO, Minimum Balance, and DDDW can be calculated as follows:

FIFO (first-in, first-out) Method

(a) $ 200 x .06 x 90/360 = $ 3.00
(b) $1,000 x .06 x 60/360 = $10.00
$1,200 $13.00

LIFO (last-in, first-out) Method

(a) $1,000 x .06 x 90/360 = $15.00
(b) $ 200 x .06 x 60/360 = $ 2.00
$1,200 $17.00

DDDW (day-of-deposit-to-day-of-withdrawal) Method

(a) $1,000 x .06 x 30/360 = $ 5.00
(b) $2,000 x .06 x 30/360 = $10.00

(c) $1,200 x .06 x 30/360 = $ 6.00

$21.00

Average Daily Balance Method

Balance	Number of Days	Total
$1,000	30	$30,000
$2,000	30	60,000
$1,200	30	36,000
Total	90 days	126,000

Average balance is: $126,000/90 days = $1,400

$1,400 x .06 x 90/360 = $21.00

Minimum Balance Method

$1,000 x .06 x 90/360 = $15.00

Investing in Money Market Funds

Money market funds are special forms of mutual funds. You can own a portfolio of high-yielding CDs, T-bills, and other similar securities of short-term nature, with a small investment. There is liquidity and flexibility in withdrawing funds through check-writing privileges (the usual minimum withdrawal is $500). Money market funds are considered very conservative, because most of the securities purchased by the funds are safe. For more about money market funds, refer to Chapter 16 (Mutual Funds and Diversification).

Investing in Certificates of Deposit

Investors searching for relatively low-risk investments that can easily be converted into cash often turn to certificates of deposit (CDs). A CD is a special type of deposit account with a bank or thrift institution that typically offers a higher rate of interest than a regular savings account. Unlike other investments, CDs feature federal deposit insurance up to $250,000.

Here's how CDs work: When you purchase a CD, you invest a fixed sum of money for fixed period of time – six months, one year, five years, or more – and, in exchange, the issuing bank pays you interest, typically at regular intervals. When you cash in or redeem your CD, you receive the money you originally invested plus any accrued interest. But if you redeem your CD before it matures, you may have to pay an "early withdrawal" penalty or forfeit a portion of the interest you earned.

Although most investors have traditionally purchased CDs through local banks, many brokerage firms and independent salespeople now offer CDs. These individuals and entities – known as "deposit brokers" – can sometimes negotiate a higher rate of interest for a CD by promising to bring a certain amount of deposits to the institution. The deposit broker can then offer these "brokered CDs" to their customers.

At one time, most CDs paid a fixed interest rate until they reached maturity. But, like many other products in today's markets, CDs have become more complicated. Investors may now choose among variable rate CDs, long-term CDs, and CDs with other special features.

Some long-term, high-yield CDs have "call" features, meaning that the issuing bank may choose to terminate – or call – the CD after only one year or some other fixed period of time. Only the issuing bank may call a CD, not the investor. For example, a bank might decide to call its high-yield CDs if interest rates fall. But if you've invested in a long-term CD and interest rates subsequently rise, you'll be locked in at the lower rate.

Before you consider purchasing a CD from your bank or brokerage firm, make sure you fully understand all of its terms. Carefully read the disclosure statements, including any fine print. And don't be dazzled by high yields. Ask questions – and demand answers – before you invest. These tips can help you assess what features make sense for you:

- **Find Out When the CD Matures** – As simple as this sounds, many investors fail to confirm the maturity dates for their CDs and are later shocked to learn that they've tied up their money for five, ten, or even twenty years. Before you purchase a CD, ask to see the maturity date in writing.
- **Investigate Any Call Features** – Callable CDs give the issuing bank the right to terminate-or "call"-the CD after a set period of time. But they do not give you that same right. If interest rates fall, the issuing bank might call the CD. In that case, you should receive the full amount of your original deposit plus any unpaid accrued interest. But you'll have to shop for a new one with a lower rate of return. Unlike the bank, you can never "call" the CD and get your principal back. So if interest rates rise, you'll be stuck in a long-term CD paying below-market rates. In that case, if you want to cash out, you will lose some of your principal. That's because your broker will have to sell your CD at a discount to attract a buyer. Few buyers would be willing to pay full price for a CD with a below-market interest rate.
- **Understand the Difference between Call Features and Maturity** – Don't assume that a "federally insured one-year non-callable" CD matures in one year. It doesn't. These words mean the bank cannot redeem the CD during the first year, but they have nothing to do with the CD's maturity date. A "one-year non-callable" CD may still have a maturity date 15 or 20 years in the future. If you have any doubt, ask the sales representative at your bank or brokerage firm to explain the CD's call features and to confirm when it matures.
- **For Brokered CDs, Identify the Issuer** – Because federal deposit insurance is limited to a total aggregate amount of $100,000 for each depositor in each bank or thrift institution, it is very important that you know which bank or thrift issued your CD. Your broker may plan to put your

money in a bank or thrift where you already have other CDs or deposits. You risk not being fully insured if the brokered CD would push your total deposits at the institution over the $100,000 insurance limit. (If you think that might happen, contact the institution to explore potential options for remaining fully insured, or call the FDIC.) For more information about federal deposit insurance, visit the Federal Deposit Insurance Corporation's website (www.fdic.gov) and read its publication Your Insured Deposit or call the FDIC's Consumer Information Center at 1-800-934-3342.

- **Find Out How the CD Is Held** – Unlike traditional bank CDs, brokered CDs are sometimes held by a group of unrelated investors. Instead of owning the entire CD, each investor owns a piece. Confirm with your broker how your CD is held, and be sure to ask for a copy of the exact title of the CD. If several investors own the CD, the deposit broker will probably not list each person's name in the title. But you should make sure that the account records reflect that the broker is merely acting as an agent for you and the other owners (for example, "XYZ Brokerage as Custodian for Customers"). This will ensure that your portion of the CD qualifies for up to $250,000 of FDIC coverage.
- **Research Any Penalties for Early Withdrawal** – Deposit brokers often tout the fact that their CDs have no penalty for early withdrawal. While technically true, these claims can be misleading. Be sure to find out how much you'll have to pay if you cash in your CD before maturity and whether you risk losing any portion of your principal. If you are the sole owner of a brokered CD, you may be able to pay an early withdrawal penalty to the bank that issued the CD to get your money back. But if you share the CD with other customers, your broker will have to find a buyer for your portion. If interest rates have fallen since you purchased your CD and the bank hasn't called it, your broker may be able to sell your portion for a profit. But if interest rates have risen, there may be less demand for your lower-yielding CD. That means you would have to sell the CD at a discount and lose some of your original deposit –despite no "penalty" for early withdrawal.
- **Thoroughly Check Out the Broker** – Deposit brokers do not have to go through any licensing or certification procedures, and no state or federal agency licenses, examines, or approves them. Since anyone can claim to be a deposit broker, you should always check whether your broker or the company he or she works for has a history of complaints or fraud. You can do this by calling your state securities regulator or by checking with the National Association of Securities Dealers' "Central Registration Depository" at 1-800-289-9999.
- **Confirm the Interest Rate You'll Receive and How You'll Be Paid** – You should receive a disclosure document that tells you the interest rate on your CD and whether the rate is fixed or variable. Be sure to ask how often the bank pays interest – for example, monthly or semi-annually. And confirm how you'll be paid – for example, by check or by an electronic transfer of funds.
- **Ask Whether the Interest Rate Ever Changes** – If you're considering investing in a variable-rate CD, make sure you understand when and how the rate can change. Some variable-rate CDs feature a "multi-step" or "bonus rate" structure in which interest rates increase or decrease over time according to a pre-set schedule. Other variable-rate CDs pay interest rates that track

the performance of a specified market index, such as the S&P 500 or the Dow Jones Industrial Average.

The bottom-line question you should always ask yourself is: Does this investment make sense for me? A high-yield, long-term CD with a maturity date of 15 to 20 years may make sense for many younger investors who want to diversify their financial holdings. But it might not make sense for elderly investors.

Don't be embarrassed if you invested in a long-term, brokered CD in the mistaken belief that it was a shorter-term instrument-you are not alone. Instead, you should complain promptly to the broker who sold you the CD. By complaining early you may improve your chances of getting your money back. Here are the steps you should take:

- Talk to the broker who sold you the CD, and explain the problem fully, especially if you misunderstood any of the CD's terms. Tell your broker how you want the problem resolved.
- If your broker can't resolve your problem, then talk to his or her branch manager.
- If that doesn't work, then write a letter to the compliance department at the firm's main office. The branch manager should be able to provide you with contact information for that department. Explain your problem clearly, and tell the firm how you want it resolved. Ask the compliance office to respond to you in writing within 30 days.
- If you're still not satisfied, then send a complaint to the Office of Investor Education and Assistance at: www.sec.gov/investor.shtml. Be sure to attach copies of any letters you've sent already to the firm

You should also contact the banking regulator that oversees the bank that issued the CD:

- The *Board of Governors of the Federal Reserve System* oversees state-chartered banks and trust companies that belong to the Federal Reserve System.
- The *Federal Deposit Insurance Corporation* regulates state-chartered banks that do not belong to the Federal Reserve System.
- The *Office of the Controller of the Currency* regulates banks that have the word "National" in or the letters "N.A." after their names.
- The *National Credit Union Administration* regulates federally charted credit unions.
- The *Office of Thrift Supervision* oversees federal savings and loans and federal savings banks.

Banks compete for deposits by offering attractive yields. To compare CDs, look at the effective annual yield, which takes into account the effects of compounding. The figures in Exhibit 1 indicate how much difference compounding can make on the rate of interest paid. For example, the annual return on a 6 percent CD with annual compounding is 6 percent, but the same CD with quarterly compounding could yield as much as 6.14 percent.

Banks calculate interest in various ways, so true yield varies widely on CDs with the same maturity and interest rate. Note that true yields are not always spelled out in bank advertising, but banks normally post the true yields inside bank offices, list them on window displays, or make them available over the phone.

Exhibit 1

Nominal and Effective Interest Rates with Different Compounding Periods

Effective Annualized Yield

Nominal Rate	Annually	Semiannually	Quarterly	Monthly	Daily
6%	6%	6.09	6.14	6.17	6.18
7	7	7.12	7.19	7.23	7.25
8	8	8.16	8.24	8.30	8.33
9	9	9.20	9.31	9.38	9.42
10	10	10.25	10.38	10.47	10.52
11	11	11.30	11.46	11.57	11.62
12	12	12.36	12.55	12.68	12.74

How to Buy a Treasury Bill

Treasury bills are short-term obligations of the U.S. Government, which may be purchased for a minimum of $10,000, with maturities of 3 months, 6 months, or 1 year. T-bills are perhaps the safest investment, 100 percent guaranteed by the U.S. Government. Note: They carry the lowest markup, and you can even buy them without commission directly from Federal Reserve branches (for information, go to www.treasurydirect.gov). Treasury yields are published daily in the larger newspapers and in numerous Web sites. The interest is exempt from state and local taxes. T-bills are sold at a discount to face value.

Treasury Inflation-Indexed Bond

The Treasury inflation-indexed bond—or TIPS (Treasury Inflation-Protection Securities) are securities that provide investors with the opportunity to stay ahead of inflation by periodically adjusting their returns for any inflation that has occurred. That is, if inflation is running at an annual rate of, say, 3 percent, then at the end of the year, the par (or maturity) value of your bond will increase by 3 percent (actually, the adjustments to par value are done every six months).

Thus, the $1,000 par value will grow to $1,030 at the end of the first year and, if the 3 percent inflation rate continues for the second year, the par value will once again move up, this time from $1,030 to $1,061 (or $1,030 x 1.03). Unfortunately, the coupons on these securities are set very low, as they're meant to provide investors with so-called real (inflation-adjusted) returns. Thus, one of these bonds might carry a coupon of only 3 1/2 percent (at a time when regular T-bonds are paying, say, 6 1/2 or 7 percent). But there's an upside even to this: The actual size of the coupon payment will increase over time as the par value on the bond goes up. For investors who are concerned about inflation protection, these securities may be just the ticket.

U.S. Savings Bonds

There two types of U.S. savings bonds: Series EE and Series HH. A Series EE bond is purchased for half of its face value. It pays no periodic interest, since the interest accumulates between the purchase price and the bond's maturity value. For example, a Series EE bond can be purchased for $100 and redeemed at maturity for $200. Series EE bonds can be purchased in denominations from $25 to $5,000, with a maximum purchase limit of $15,000 annually. The early redemption is penalized with a lower interest rate than stated on the bond. When held for at least five years, Series EE bonds earn market-based interest or a guaranteed minimum, whichever is higher. Bonds for less than five years earn a lower rate of return. The market-based rate, announced each May and November, is 85 percent of the market average on five-year Treasury securities.

Series HH bonds are issued only in exchange for Series E and EE savings bonds. They are purchased at face value and pay interest semiannually until maturity five years later. Early redemption will be penalized at slightly less than face value.

Advantages

- Both Series EE and Series HH interest income is exempt from state and local taxes. Federal income taxes can be deferred on Series EE bonds until they are redeemed.
- There are no service charges when you purchase or redeem savings bonds, as there are with many other investments.
- Safety and complete security backed by the U.S. Government.

Disadvantages

- Lack of liquidity.
- Relatively lower yield.

U.S. savings bonds can be purchased at most banks and other financial institutions or through payroll deduction plans. They can be replaced if lost, stolen, or destroyed. Both series must be held at least 6 months before redeeming.

U.S. Series I Savings Bond

A U.S. savings bond is designed to protect the purchasing power of your principal and guarantees a real fixed rate of return above inflation for the life of the bond (10 to 30 years). The current series I savings bond, called I-bond for short, guarantees 3% above inflation. You can purchase up to $30,000 worth of the bonds each year, you can never lose principal, earnings are free from state and local taxes, and federal taxes are deferred until you redeem the bond. Plus, there are no fees when you buy or sell these bonds. Although you can cash an I-bond six months after the issue date, there is a three-month earnings penalty if you redeem them in less than five years. I-bonds are sold in denominations of $50 to $10,000 at most banks and also online at www.treasuryDirect.gov (or www.savingsbonds.gov).

Specific features of I savings bonds are:

- Sold at face value. (You pay $50 for a $50 bond.)
- Offer a real rate of return over and above inflation.
- Buy as much as $30,000 per year.
- New rates announced each May 1st and November 1st. This inflation adjustment ensures that your savings earn money over and above inflation.
- Earn interest for up to 30 years.
- Can be redeemed any time after six months.
- Exempt from state and local income taxes.
- Backed by the full faith and credit of the United States.
- Available in the following denominations: $50 $75 $100 $200 $500 $1,000 $5,000 $10,000
- No regular interest payments. The interest accrues until redeemed.

How to Buy Savings Bonds

Financial institutions nationwide - More than 40,000 banks, credit unions, and other financial institutions sell Savings Bonds directly.

EasySaver Plan – Even if you don’t have access to payroll savings, you can save easily using recurring, automatic debits from your checking or savings account.

Direct online purchase - Savings Bonds Direct at www.treasuryDirect.gov allows you to buy Savings Bonds anytime using a secure credit card transaction-a perfect way to buy Savings Bonds as gifts or to make other one-time purchases.

Online banking - Many financial institutions now offer Savings Bonds as part of their online banking services.

Contact information - For more information on Savings Bonds you can visit the Website at www.treasuryDirect.gov.

An "All-in-One" Account or Asset Management Account

With a minimum deposit requirement, many banks offer a package of services, including

- A money market deposit account (MMDA) with unlimited free checking
- A Visa or MasterCard debit account
- Use of automated teller machines (ATMs)
- Loan and brokerage accounts
- Automated cash management
- Certain investment services
- Preferential personal treatment

On the cash-management side, the bank covers checks you write by transferring the right amount from your money-market account balance to your checking account, leaving the rest to earn interest.
On the investment side, the bank offers their facilities not only for trading securities at a discount but also for personal financial planning. On top of this, the bank issues an exhaustive monthly statement that lists such items as stock and bond transactions as well as checking, CD, money market and loan balances. Annual fees for these comprehensive services can be substantial, so ask yourself how many of these services you need. For example, if you are mainly interested in trading stocks and bonds, using a discount broker would be cheaper and more practical than the bank's asset management service. *Note*: AMAs are not covered by deposit insurance, although these deposits are protected by the Securities Investor Protection Corporation (SIPC) and the firm's private insurance.

Money market funds offer similar services including checking, savings, investments and a credit card. Like the bank's asset management account, an asset management account of a fund centralizes bookkeeping, allows the writing of unlimited checks, and provides for the automatic crediting of stock dividends and bond interest. Disadvantages of the account are a high deposit required to open it (usually $5,000 to $20,000), annual fees ranging from $25 to $100, and failure to return checks by some funds.

Banking Tools You Can Use

Banks offer a variety of account-related and credit-related services. Consider the following to be some of the most practical and useful banking tools.

Overdraft Protection

If you bounce a check—that is, write a check for more money than you actually have in your checking account—you will not only have to pay hefty fees but may also be placed on a list of bad check writers by the store or bank at which your check bounced. Overdraft protection is an automatic line of credit which funds your checking account should you inadvertently overdraw your account. Typically, there's no annual fee for this service; however, there's a finance charge that is assessed on any unpaid credit-line balance. That rate will be high.

ATM and Debit Cards

Chances are you have an Automatic Teller Machine (ATM) card. ATM cards provide you with the convenient benefit of being able to withdraw and deposit money 24 hours a day, in nearly every locale in the country, as well as abroad. To do so, you simply pick and memorize a Personal Identification Number (PIN), then find an ATM machine that is part of (or linked to) your bank's data network. (You will likely be charged a fee for using nonmember banks' machines. You may even be charged a fee for using your own bank's ATMs.)

You can now use your ATM card to access mutual fund investment information, and, if you are investing in mutual funds through your bank, you can obtain prices, account balances, and even buy and sell shares. (To buy more shares, you simply authorize a transfer of cash from your savings or checking account.) At the end of your transaction, you will get a printout of what you have done—just the way you do when you make a normal deposit or withdrawal.

Secured Cards

This type of card provides the answer to an old riddle—namely, how can you get a credit card if you have no existing credit card history, and how can you get an existing credit card history if you have no credit card? With a secured card, the bank will require you to place a specific sum (typically $500) of money in a secured credit card account. That money then will serve as your secured card's credit limit. Every "charge" you make will be debited from the balance. Every payment you make will be credited to it.

Bankcards and Smart Cards

A bankcard is a bank-issued credit card. There may be an advantage to taking out a bank card at your bank as opposed to another. Lower interest rates and lower or no annual fees top the list.

Smart cards, sometimes called electronic wallets, look like ATM cards, but they include a microchip. This minicomputer will store prepaid amounts for transit fares, telephone calls, highway tolls, and vending machine purchases. The smart card can also track personal information such as your bank balance, credit background, and health history.

Loans and Cobranded Credit Cards

Banks are often thought of more as a place to take out a loan than as a place to put money in to. Nearly every bank on the planet has a host of ways to lend you money. Banks lend funds not only through installment loans but also through cash advances on MasterCard or Visa cards. Credit card cobranding has become increasingly popular with banks and industries. Examples are Ford Motor Company's Citibank Visa and MasterCard and Nordstrom's cobranded Visa.

Investments

Banks are now offering a host of investor-related services and products. Bank mutual funds are increasingly common. As with direct-marketed or broker-sold funds, the variety and type of bank-marketed funds can be overwhelming at first. This is especially true if you are unsure about investing basics, let alone facts about mutual fund investing.

Electronic Banking

There are a number of ways that banks are using technology to make banking easier for you (and for themselves) :

Direct Deposit

Social security checks, veteran's benefits, and your paychecks can often be directly deposited into your account. Everyone involved saves time. Just find out if your employer participates in such a plan.

Automatic Investment and Withdrawal

If you invest regularly, you can often design a schedule for automatic transfers from your savings account to your mutual funds or IRAs.

On-Line Banking

Today, you can satisfy most of your banking needs on-line-from opening accounts, looking up your balances, transferring funds between accounts, electronic bill-paying, automatic investing, even shopping and qualifying for a mortgage. What do you need to open up an on-line account? A computer and access to the Web or one of the on-line services, especially if you are using Quicken , which will let you download your bank account information directly into your own personal financial plan. They're not just providing you with a more efficient way to bank, pay your bills, and buy a home—they're providing you with a host of relevant, timely financial information that you can put to good use in your overall financial planning and decision-making processes.

Check Endorsements

Before depositing a check or transferring it to another person, you as payee must endorse the check. Whenever you endorse a check you become liable for payment of it. There are several types of endorsements: blank, special, and restrictive.

Blank. A blank endorsement is simply the payee's signature. It transfers title to anyone holding it at the time. Warning: Since it can be cashed by anyone, you should not use this endorsement until you are actually giving it to someone.

Special. A special endorsement names an endorsee, who is the person you are giving the check to and the next person who must endorse it. No one else can negotiate the check.

Restrictive. A restrictive endorsement specifies what can be done with the check and restricts further endorsement. An example is "for deposit only."

Chapter 7 Review Questions

1. When you are shopping for a bank you should NOT consider the asset size of a bank. True or False?

2. Methods used to determine savings account balances for interest calculations include the maximum-balance method. True or False?

3. Investors searching for relatively low-risk investments that can easily be converted into cash often turn to certificates of deposit (CDs). True or False?

Chapter 7 Review Answers

1. When you are shopping for a bank you should NOT consider the asset size of a bank.   True or False?

> **True is correct.** When you are shopping for a bank, asset size of the bank is a least important factor in terms of quality of service and convenience.
>
> False is incorrect. Consider the following elements: comparison of rates and fees; clarity of information; convenient hours and services.

2. Methods used to determine savings account balances for interest calculations include the maximum-balance method. True or False?

> True is incorrect. Banks calculate interest on depositors' account balances in four different ways: FIFO (first in, first out), LIFO (last in, first out), minimum-balance, and DDDW (day-of-deposit-to-day-of-withdrawal).
>
> **False is correct.** No banks calculate interests based on the maximum balance; it is not to their advantage.

3. Investors searching for relatively low-risk investments that can easily be converted into cash often turn to certificates of deposit (CDs). True or False?

> **True is correct.** A CD is a special type of deposit account with a bank or thrift institution that typically offers a higher rate of interest than a regular savings account. Unlike other investments, CDs feature federal deposit insurance up to $250,000.
>
> False is incorrect. When you purchase a CD, you invest a fixed sum of money for fixed period of time – six months, one year, five years, or more – and, in exchange, the issuing bank pays you interest, typically at regular intervals. When you cash in or redeem your CD, you receive the money you originally invested plus any accrued interest. But if you redeem your CD before it matures, you may have to pay an "early withdrawal" penalty or forfeit a portion of the interest you earned.

Chapter 8:

Managing Debt

Learning Objectives

After reading this chapter you will be able to:

- Understand the different factors of credit ratings and FICO scores.
- Recognize various debt management strategies and debt/equity ratios.
- Understand bankruptcy law.

Virtually everybody uses credit every day. We live in an era of what seems to be abundant credit, which in turn allows people to spend more than ever before. Credit becomes a vicious cycle for many people. If you do not exercise caution, you can run into serious financial trouble, including the possibility of bankruptcy.

Credit Cards

Evaluating Credit Cards

Credit cards are an expensive way of borrowing. Their average interest rate nationally hovers around 18 percent. But increased competition among issuers (along with the outcry of consumer groups) is pushing rates down. So it pays to comparison shop.

1. *Interest rates and annual fees*. A simple way to compare the costs of credit cards involves two steps. First, multiply the balance you usually carry by the percentage difference between the two cards. For example, if your average annual balance is $500 and the rate difference between credit cards is 5 percent, you would save $25 (5% x $500) with the less expensive card. Second, add in the annual fees. Do not skip this step: A card with a lower finance charge may carry a

higher annual fee. One way to save on annual fees is to reassess whether you really need as many cards as you have in your wallet, and get rid of the cards you do not use. You can reduce the number of credit cards that you have by using each credit card to the maximum allowable amount. Thus, you can reduce total annual charges of your credit cards.

2. *Grace periods*. Do not forget the phase-out of deductibility of consumer credit interest. A 25- to 30-day period which you can pay your bill in full and not incur an interest charge would be the best thing to free money under the tax law. However, there is a growing trend to shorten or eliminate grace periods.
3. *Transaction fees*. Some issuers impose a small fee each time the card is issued for a charge purchase. Many issuers also charge a fee for each cash advance, which can add up if you make frequent use of cash advances.
4. *Other fees and charges*. These include late-payment fees and charges for exceeding your credit limit.
5. *Other benefits*: This includes frequent flyer miles, rewards programs and rebates.

Rule of thumb: for most people, the best deal is a card with a low interest rate, no annual fee and a 25- to 30-day grace period.

No matter how much your annual income, you should not overload yourself with too many credit cards. It can be hazardous to your credit records. They count as debts on your credit file even though they were not used at all or to the maximum limit.

Credit Card Accountability, Responsibility, and Disclosure Act of 2009

The Act, established 2009, (also known as the Credit CARD Act) aimed to protect consumers from the credit card issuers' practices of increasing rates and fees. Companies will be required to make more disclosures and they face new limits on certain credit card practices. The Act was implemented in three phases and the last phase was to go into effect in August 2010. Some key changes are:

1. The Credit Card Act of 2009 requires credit card companies to must now notify a cardholder 45 days before any change such as a rate or fee increase occurs. In the past they only had to give 15 days' notice.
2. The credit card companies must now mail out the credit card bill so that the cardholder receives the bill 21 days before the due date. This is an increase from the 14 days in the past and is designed to allow for postal delivery times.
3. Cardholders now have the option to opt out of a rate increase.

Where to Get Credit Counseling?

We are in an era where banks and stores are pushing credit cards and charge accounts on virtually anyone. It is not surprising that a lot of people have trouble handling the debts that go with "plastic money." Financial troubles scenarios include:

- Inability to pay even the minimum amount due each month on every account.
- The situation where installment debts leave almost nothing for discretionary spending.
- No cushion for savings for an emergency.
- High interest cost.

The worksheet in Exhibit 1 will give you a quick picture of your credit obligations. Be sure to list all your consumer debts, noting the maturity dates for non-revolving charges. After you have totaled your monthly debt obligations, figure out the percentage of your take-home pay that they represent. If the figure is higher than 15 to 20 percent, you are in danger of credit overload. Also, ask yourself "Can I pay off all my debts within 18 to 24 months?" If not, you are probably in "over your head."

Painstaking Steps to Take

If, after completing the worksheet, you find you need to trim your indebtedness, try the following steps:

1. Analyze your expenses. What are you spending, and where? Look for areas where you can cut back, at least temporarily, to free up cash and pay off debts.
2. Lock up your credit cards or get rid of some.
3. Establish a self-imposed repayment schedule. Start with the debts that carry the highest financial charges.
4. Do not take on new debts until your present ones are under control.

Exhibit 1
Quick Glance at Your Credit Picture

Name of Creditor	*Interest Rate*	*Monthly Payment*	*Last Payment*	*Balance*
	Total	________		________

Tips:

- Try to talk to creditors and rearrange a favorable repayment schedule.
- Look for ads for debt consolidation loans, which are hopefully at lower interest rates with smaller monthly payments and longer repayment terms.
- Look hard for impartial counseling from someone or an organization that does not attempt to take advantage of your situation. You may want to contact: Consumer Credit Counseling Service, The National Foundation for Consumer Credit (www.nfcc.org). This is a nonprofit counseling service that offers counseling in various areas such as budgeting, design of a debt repayment

plan, and management of credit. You might look up your telephone White Pages directory for their local listings and locations.

Exhibit 2 lists the danger signals of potential debt problems.

Exhibit 2
Danger Signals of Potential Debt Problems.

1. Paying only the minimum balance on credit card bills each month
2. Increasing the total balance due on credit accounts each month
3. Missing payments, paying late, or paying some bills this month and others next month
4. Intentionally using the overdraft or automatic loan features on checking accounts or taking frequent cash advances on credit cards
5. Using savings to pay routine bills such as groceries or utilities
6. Receiving second or third payment notices from creditors
7. Not talking to your spouse about money or talking only about money
8. Depending on overtime, moonlighting, or bonuses to meet everyday expenses
9. Using up your savings
10. Borrowing money to pay old debts
11. Not knowing how much you owe until the bills arrive
12. Going over your credit limit on credit cards
13. Having little or nothing in savings to handle unexpected expenses
14. Being denied credit because of a negative credit bureau report
15. Getting a credit card revoked by the issuer
16. Putting off medical or dental visits because you can’t afford them right now

If your household is noticing more than two of these warning signals, it’s time to examine your budget for ways to reduce expenses.

Fair Credit Reporting

If you've ever applied for a charge account, a personal loan, insurance, or a job, there's a file about you. This file contains information on where you work and live, how you pay your bills, and whether you've filed for bankruptcy, been sued, or arrested. Companies that gather and sell this information are called Consumer Reporting Agencies (CRAs). The most common type of CRA is the credit bureau. The information CRAs sell about you to creditors, employers, insurers, and other businesses is called a consumer report. The Fair Credit Reporting Act (FCRA), enforced by the Federal Trade Commission, is designed to promote accuracy and ensure the privacy of the information used in consumer reports. Recent amendments to the Act expand your rights and place additional requirements on CRAs.

Businesses that supply information about you to CRAs and those that use consumer reports also have new responsibilities under the law.

Here are some questions consumers commonly ask about consumer reports and CRAs -- and the answers. Note that you may have additional rights under state laws. Contact your state Attorney General or local consumer protection agency for more information.

How do I find the CRA that has my report?

Contact the CRAs listed under "credit" or "credit rating and reporting." Because more than one CRA may have a file on you, call each until you locate all the agencies maintaining your file. The three major national credit bureaus are:

1. Equifax, P.O. Box 740241, Atlanta, GA 30374-0241; (800) 685-1111. www.equifax.com.
2. Experian (formerly TRW), P.O. Box 949, Allen, TX 75013; (888) EXPERIAN (397-3742). www.experian.com.
3. Trans Union, 760 West Sproul Road, P.O. Box 390, Springfield, PA 19064-0390; (800) 916-8800. www.transunion.com.

Note: These three agencies created www.AnnualCreditReport.com , a Website that allows consumers to request, view, and print credit reports in a matter of minutes. The site also simplifies complicated financial terms and mathematical equations.

In addition, anyone who takes action against you in response to a report supplied by a CRA— such as denying your application for credit, insurance, or employment—must give you the name, address, and telephone number of the CRA that provided the report. The CRA must tell you everything in your report, including medical information, and in most cases, the sources of the information. The CRA must also give you a list of everyone who has requested your report within the past year -- two years for employment related requests. Note: Credit reports are used also for credit approval, employment, insurance underwriting, issuing a professional license, a court order or subpoena, reviewing or collecting an existing account, or if you owe the Internal Revenue Service money. The Fair Credit Reporting Act also allows employers, landlords, phone and utility companies, doctors, dentists, and in fact, almost anyone with a legitimate business reason to have access to your credit report.

Get Your Free Credit Report

Every person is entitled to a free credit report every 12 months from each of the three nationwide consumer-reporting agencies -- Equifax, Experian and TransUnion.

Go to a single Web site, www.annualcreditreport.com, where you can request your reports online. Or call a toll-free number, (877) 322-8228, or mail a request to Annual Credit Report Request Service, P.O. Box 105281, Atlanta, GA 30348-5281. A form called the Annual Credit Report Request Form can be downloaded from www.ftc.gov/credit. The law allows you to order one free copy from each of the agencies every 12 months.

What Do I Look For When I Get The Report?

- Accounts that aren't yours.
- Any delinquencies that are still on the report after the seven-year time limit has passed.
- Notices of late payments that the consumer believes were on time.
- Multiple collection-agency notices for a single debt.

Note: Being familiar with your credit history also guards against identity theft.

What can I do about inaccurate or incomplete information?

Under the law, both the CRA and the information provider have responsibilities for correcting inaccurate or incomplete information in your report. To protect all your rights under this law, contact both the CRA and the information provider.

First, tell the CRA in writing what information you believe to be inaccurate. CRAs must reinvestigate the items in question - usually within 30 days -- unless they consider your dispute frivolous. They must also forward all relevant data that you provide about the dispute to the information provider. After the information provider receives notice of a dispute from the CRA, it must investigate, review all relevant information provided by the CRA, and report the results to the CRA. If the information provider finds the disputed information to in fact be inaccurate, it must notify all nationwide CRAs so that they can correct this information in your file.

When the reinvestigation is complete, the CRA must give you the written results and a free copy of your report if the dispute results in a change. If an item is changed or removed, the CRA cannot put the disputed information back in your file unless the information provider verifies its accuracy and completeness, and the CRA gives you a written notice that includes the name, address, and phone number of the provider.

Second, tell the creditor or other information provider in writing that you dispute an item. Many providers specify an address for disputes. If the provider then reports the item to any CRA, it must include a notice of your dispute. In addition, if you are correct -- that is, if the information is in fact inaccurate -- the information provider may not use it again.

How long can a CRA report negative information?

Seven years. There are certain exceptions:

- Information about criminal convictions may be reported without any time limitation.
- Bankruptcy information may be reported for 10 years.
- Information reported in response to an application for a job with a salary of more than $75,000 has no time limit.
- Information reported because of an application for more than $150,000 worth of credit or life insurance has no time limit.

- Information about a lawsuit or an unpaid judgment against you can be reported for seven years or until the statute of limitations runs out, whichever is longer.

How Much Debt Can You Handle?

It is not easy to determine the maximum debt to have. There are three methods to establish debt limits: the disposable income, ratio of debts to equity, and continuous debt methods.

Disposable income method. Keep your monthly consumer debt payments down to around 15% of your disposable personal income. Calculate the debt safety ratio:

Monthly consumer debt payments/monthly take-home pay.

The disposable personal income is the amount of your take-home pay left after all deductions are withheld for taxes, insurance, union dues, and the like. The absolute maximum: 20 percent.

Note that the maximum limit includes payments due on credit cards, and personal, school and car loans--but not mortgages, home-equity loans or rent. Those obligations can account for as much as an additional 35 percent of your total monthly expenditures. The following steps can assist in determining your debt limit:

1. Calculate your monthly consumer debt payments.
2. Determine your monthly net income (after all taxes, Social Security and IRA contributions).
3. To calculate the most you can afford each month, multiply your monthly income by 20%, 15%, or 10% (your personal permissible debt ratio, if you will). Rule of thumb: If you are single, middle-aged and net $40,000 a year, you can perhaps afford 20% in debt. Reduce debt to 10% if your income is not stable (e.g., based on commissions rather than salary). If you and your working spouse take home $50,000, you can afford 20%. If you have children, knock it back to 15%. If you are retired on a fixed income, make it 10%.
4. To find whether your payments are within your means, subtract (1) from (3). This figure is your safety margin. If (1) is larger than (3), however, you should start taking the steps suggested previously.

EXAMPLE 1

> You are single, middle-aged and take home $40,000 a year (or $3,333 a month). You carry an average monthly consumer debt payment of $1,000. According to the rule of thumb, the most you can afford each month would be $667 (20% x $3,333). Since you are well over the limit [by $333 ($1,000 - $667)], you should seriously consider cutting down on existing debts and avoid additional borrowing.

Ratio of debts to equity method. Calculate the so-called debt/equity ratio. The ratio is your debts (not including a first mortgage) to your equity or net worth (not including the value of a first home). If your debts equal or exceed equity (i.e., if their debt/equity ratio is equal to or greater than 1), you are probably at your maximum debt limit.

EXAMPLE 2

If you have $58,000 in net worth and owe $29,000, your debt/equity ratio is .5 ($29,000/$58,000).

Continuous debt method. If you cannot get completely out of debt every three years (except for mortgage and education loans), you are probably too heavy in debt.

The Five C's of Credit

There is a standard series of criteria lenders use to screen potential borrowers. There is something you always have to watch out for. The five elements of credit are:

1. Character (willingness to pay)
2. Capacity (cash flow)
3. Capital (wealth)
4. Collateral (security)
5. Conditions (economic environment)

Character is your integrity and reliability in meeting financial obligations. Your credit history indicated how reliable you are in paying bills on time. *Capacity* looks at your earning power and cash flow. *Capital* analyzes your personal balance sheet (assets and liabilities) to reveal whether net worth is positive or negative. How much equity is there? Is your net worth adequate to meet obligations? *Collateral* refers to assets that can be secured and liquidated by the lender if a loan is not repaid. Finally, *conditions* include economic factors at the time of the loan and your vulnerability to a business downturn or credit crunch. When money is available, especially at low interest rates, it is much easier to obtain credit, whereas in a credit crunch, many applicants who would normally have been approved for credit are rejected. Is the timing right for a loan application?

Once the five C's are analyzed, you are assigned to a credit rating category that reflects the perceived risk to the lender. Generally, the greater the credit risks the higher the interest rate on the loan. If risk is excessive, you may be unable to obtain bank financing.

FICO Scores

A FICO (an acronym for Fair, Isaac & Company), or credit score is a computer-generated numerical grade that predicts a lender's risk in doing business with a borrower. Any company or individual that issues mortgage loans, home-equity loans, car loans, insurance policies, or healthcare services (even the IRS) bases much of its lending decisions and terms on the applicant's FICO score. FICO scores are determined by computers and released through the three credit bureaus to their subscribing members. At Experian, the scores are called Experian/Fair, Isaac; at Equifax, they are called Beacon scores; at Trans Union, they are called Empirica scores.

Scoring is based on things like time on the job, the time you've lived at your current address, plus about 30 other factors, none of which are your income or assets:

1. *Payment history*. Do you make your payments on time? Have you had accounts turned over to collection? FICO deducts points for bad behavior, and it gives points for maintaining a good payment relationship.
2. *Outstanding debt*. FICO is very interested in the number of balances you have currently; the average of all balances, and the relationship between the total balance and total credit limit. Carrying too much credit lowers your score even if some of your accounts have zero balances, but FICO doesn't like to see you close to or at your limits, either.
3. *Credit history*. FICO looks at how long you've had those accounts, the total number of inquiries, and if you have opened new accounts. It is highly concerned about inquiries and accounts less than 12 months old.
4. *The types of credit you use*. FICO is very interested in the diversity of the credit you use. It looks to see if you use department store or bankcards, debit or credit cards, travel and entertainment cards, personal finance companies, and installment loans.
5. *Negative information*. Bankruptcies, late payments, collections, late fees, too many credit lines with maximum available funds borrowed, too little credit history (less than five credit lines in the past two years), and too many credit report inquiries are considered negatives.

What makes up the score?

- 35% = based on payment history "(i.e. on-time pays or delinquencies)
    - More weight on current pay history (reference right side. of sheet)
- 30%= capacity (capacity is King)
- 15%= length of credit
- 10%= accumulation of debt in the last 12-18 months
    - # of inquiries
    - opening dates
- 10% = mix of credit
    - installment (raises) vs revolving (lowers)
    - # of finance company loans the more, the lower the score

Approximate Credit Weight for each year

- 40% = current to 1 2 months
- 30% = 13-24 months
- 20% = 25-36 months
- 10% = 37+ months

What Does Not Affect the Score?

- Debt ratio

- Income
- Length of residence
- Length of employment

What Actions Will Hurt the Score?

- Missing payments (regardless of $ amounts. It will take 24mo to restore credit with one late pay)
- Credit cards at capacity (i.e. maxing out credit cards)
- Closing credit cards out (this lowers available capacity)
- Shopping for credit excessively
- Opening up numerous trades in a short time period
- Having more revolving loans in relation to installment loans
- Borrowing from finance companies

How to Improve Your Credit Scores

Here are tips for boosting your credit score:

- Apply for credit only when necessary. New credit applications can lower your score.
- Payoff debt instead of moving it to different accounts.
- Check your credit report for errors. If there are erroneous items, write to the credit reporting company and have those items removed.
- Close unused credit card accounts, but only if they were opened recently.
- Leave old credit accounts open, even if you're not using them, because part of your score is based on how long you've had credit and because capacity will decrease
- Pay down on credit cards
- Continue to make payments on time (older late pays will become less significant with time)
- Acquire a solid credit history with years of experience
- Moving revolving debt to installment debt.

What Constitutes a Good Score Varies from Lender to Lender?

FICO scores range from 375 to 900 points, and a score of 650 to 675 is generally considered excellent. However, to qualify for the most favorable terms, a lender might require a score in excess of 700.

Note:

- Rate shopping can hurt credit scores, since shopping leisurely for rates over an extended period can be interpreted as a sign that you're applying for vast amounts of credit.
- You can get all three of your FICO scores online at www.myfico.com. Most lenders check all three scores and consider the middle score in their decisions.
- For a free online credit-score estimator, go online to www.bankrate.com.

Note: The three credit bureaus -- Equifax, TransUnion, and Experian -- launched VantageScore, a scoring model that competes directly with Fair Isaac's FICO score. Both scores are based on the same information -- included in consumers' credit reports -- but use a different scoring range. VantageScore ranges between 501 and 900 and attaches a letter grade from A, the highest, to F. VantageScore is a highly predictive model using an innovative, patent-pending scoring methodology to provide lenders with a consistent interpretation of consumer credit files across all three major credit reporting companies and the ability to score a broad population. This means lenders can help more creditworthy borrowers, and millions of Americans who use credit infrequently can be accurately scored.

Are You Managing Debt Properly?

Here are some tips for managing debt properly:

- Avoid borrowing from the future to meet current living expenses. Are you borrowing against future raises or bonuses to pay for daily spending? If your living beyond your means, danger lurks ahead.
- Avoid borrowing for depreciating assets. Rather, only borrow for appreciating assets.
- What is the interest rate on each type of debt? Keep track of who is charging a higher rate and move to the lower cost source.
- Do not collaterize a loan with savings because the borrowing rate tends to be higher than the savings rate. Further, in the event of an emergency, the savings may not be withdrawn. Always try to buy something with cash rather than on credit.
- Avoid using a bank credit card because of the high finance charge (e.g., 18% to 20%). It is foolish to charge and incur an 18% financing cost while putting money in the bank and earning only 6%. You should withdraw the savings and pay off the credit card balance. Otherwise, you are losing 12% on your money.
- Avoid using borrowed funds to invest unless the interest rate is very low and there is a dependable investment return.
- Establish a line of credit before it is necessary. There is usually no charge for a preapproved line until borrowing takes place.
- To reduce credit payments, the loan may be extended over a longer time period (e.g., financing the purchase of a car over 6 years rather than 4 years).

EXAMPLE 3

You have $100,000 in a money market account earning 8%. You owe $7,000 on your credit cards at 20% interest. In this case, your net worth is declining since the borrowing cost exceeds the return on the bank account by 12%. $7,000 should be taken out from the bank account to pay the credit cards. Otherwise, your reduction in wealth on an annual basis is:

Cost of credit card	$7,000 x 20%	$1,400
Return on bank account	$7,000 x 8%	$560
Decline in wealth		$840

Advantages of Buying on Credit

The advantages of buying on credit are:

- Convenience. You do not have to pay by cash or give a check.
- Safety. You do not need to carry lots of currency.
- You can buy high-ticket items and pay it over time.
- Emergency use when an unexpected expenditure occurs and you are temporarily out of cash.
- Inflationary protection because you can buy goods or services before large inflationary price increases take place.
- Ease of returning merchandise bought since you have not paid cash for them yet.
- No charge for credit. If you pay within the credit billing period, you may not have to pay a finance charge.

Disadvantages of Buying on Credit

The disadvantages of buying on credit are:

- You can over-extend by buying items you cannot afford.
- High financing cost.
- Insecurity. Credit may create insecurity and anxiety on the part of many people.

How to Determine Monthly Installment Loan Payments

When simple interest is used with installment loans, which is the case for most lenders, interest is charged only on the outstanding balance of the loan. In practice, to determine the monthly payment amount, finance tables are widely available for use. For example, Table 6 (see Appendix) provides the monthly payment required to retire a $1,000 installment loan for a selected interest rate and term. The monthly payment covers both principal and interest, since the table has the interest charges built into it.

EXAMPLE 5

You want to take out a $15,000, 12%, 48-month loan. The following shows how to calculate:

- the monthly installment loan payment
- the total loan payment
- the total finance charge

Using Table 6, you need to follow these three steps:

Step 1: Divide the loan amount by $1,000.

- $15,000/$1,000 = 15

Step 2: Find the payment factor from Table 6 for a specific interest rate and loan maturity.

- The Table 6 payment factor for 12% and 48 months is $26.34

Step 3: Multiply the factor obtained in Step 2 by the amount from Step 1.

- $26.34 x 15 = $395.10
- Monthly installment loan payment = $395.10.
- Total loan payments = $18,964.80 ($395.10 x 48 months)
- The difference between $18,964.80 and the principal ($15,000) represents the finance charge on the loan---that is, $3,964.80.

How to Determine the True Cost of Credit?

You can determine the cost of credit in two ways: (1) in terms of total dollars, and (2) in terms of an annual percentage rate (APR).

Total Dollar Cost

In terms of total dollar cost, you can immediately see your out-of-pocket expense for the use of credit. Many banks offer different mortgage programs varying in interest rate quoted and up-front points.

EXAMPLE 6

You want to take out a $100,000 mortgage for a new house. Bank A has an interest rate of 8% and points of 2%. Bank B has an interest rate of 9% with no points. The mortgage is 20 years. Which bank arrangement should you go for? First, the yearly payments can be computed as follows:

- Bank A: 10 x $83.65 (from Table 5) = $836.50 x 12 months = $10,038
- Bank B: 10 x $89.98 = $899.80 x 12 months = $10,798

The total interest and point charge for the mortgages from both banks are:

Bank A:		
Interest charge		
Total payments $10,038 x 20	$200,760	
Less: Principal	$100,000	$100,760
Points in first year $100,000 x 2%		$2,000
Total		$102,760
Bank B:		
Interest charge		
Total payments $10,798 x 20	$215,960	
Less: Principal	$100,000	$115,960
Points in first year		0

Total	\$115,960

The mortgage from Bank A should be selected because its overall cost is lower by \$13,200 (\$115,960 - \$102,760). Note: For the sake of simplicity, the time value of monthly mortgage payments was not considered.

Annual Percentage Rate (APR)

The lender is required by the Truth in Lending Act (Consumer Credit Protection Act) to disclose to a borrower the effective annual percentage rate (APR) as well as the finance charge in dollars. The borrower can then compare the costs of the loans for the best deal.

Banks often quote their interest rates in terms of dollars of interest per hundred dollars. Other lenders quote in terms of dollars per payment. This leads to confusion on the part of borrowers. Fortunately, APR can eliminate this confusion.

The APR is a true measure of the effective cost of credit. It is the ratio of the finance charge to the average amount of credit in use during the life of the loan and is expressed as a percentage rate per year. Presented below is a discussion of the way the effective APR is calculated for various types of loans.

Single-payment Loans

The single payment loan is paid in full on a given date. There are two ways of calculating APR on single-payment loans: the simple interest method and the discount method.

(1) Simple Interest Method. Under the simple interest method, interest is calculated only on the amount borrowed (proceeds). The formula for the simple interest method is

$$\text{Interest} = \text{Principal x Rate x Time}$$

$$\text{APR} = \frac{\text{Average annual finance charge}}{\text{Amount borrowed or proceeds}}$$

EXAMPLE 7

You took out a single-payment loan of \$1,000 for two years at a simple interest rate of 15%. The interest charge and APR are:

(a) \$300 (\$1,000 x 15% x 2 years)
(b) (b) APR = 15% (\$150/\$1,000)

Under the simple interest method, the stated simple interest rate and the APR are always the same for single-payment loans.

(2) Discount Method. Under this method, interest is determined and then deducted from the amount of the loan. The difference is the actual amount the borrower receives. In other words, the borrower prepays the finance charges.

EXAMPLE 8

Using the same figures from Example 7, the actual amount received is $700 ($1,000 - $300), not $1,000 to be paid back. The APR is:

APR = 21.43% ($150/$700).

21.43% is the rate the lender must quote on the loan, not 15%.

The discount method always gives a higher APR than the simple interest method for single-payment loans at the same interest rates.

Installment Loans

Most consumer loans use the add-on method. There are several methods for calculating the APR on add-on loans. They are:

- the actuarial method,
- the constant ratio method,
- the direct ratio method, and
- the N-ratio method.

The *actuarial method* is the most accurate in calculating the APR and the one lenders most use. It can be defined as interest computed on unpaid balances of principal at a fixed rate, with each payment applied first to interest and the remainder to principal. Since calculation by this method involves complicated formulas, annuity tables or computer programs are commonly used.

The *constant ratio method* is used to approximate the APR on an installment loan by the use of a simple formula, but it overstates the rate substantially. The higher the quoted rate, the greater the inaccuracy of the method. The constant ratio formula is:

$$APR = \frac{2MC}{P(N+1)}$$

where

- M= number of payment periods in one year
- N= number of scheduled payments
- C= finance charges in dollars (dollar cost of credit)
- P= original proceeds

The *direct ratio method* uses a somewhat more complex formula but is still easier than the actuarial method. It slightly understates the APR as compared to the actuarial method. The direct ratio formula is

$$\text{APR} = \frac{6MC}{3P(N+1)+C(N+1)}$$

The *N-ratio method* gives a much more accurate approximation to the APR than either the constant ratio or the direct ratio method for most loans. The results of the N-ratio method may be either slightly higher or lower than the true rate, depending on the maturity of the loan and the stated rate itself. The N-ratio formula is:

$$\text{APR} = \frac{M(95N+9)C}{12N(N+1)(4P+C)}$$

EXAMPLE 9

Assume you borrow $1,000 to be repaid in 12 equal monthly installments of $93.00 each for a finance charge of $116.00. The APR under each of the four methods is: (Assume an annuity table or computer program gives an APR of 20.76%).

Actuarial method

The APR under this method is 20.76%, obtained from an annuity table or computer program.

Constant Ratio Method

$$\text{APR} = \frac{2MC}{P(N+1)} = \frac{(2)(12)(116)}{1000\,(12+1)} = \frac{2784}{13000} = 21.42\%$$

Direct Ratio Method

$$\text{APR} = \frac{6MC}{3P(N+1)+C(N+1)} = \frac{6(12)(116)}{3(1000)(12+1)+116(12+1)} = \frac{8352}{40508} = 20.62\%$$

N-Ratio Method

$$\text{APR} = \frac{M(95N+9)C}{12N(N+1)(4P+C)} = \frac{12[95(12)+9](116)}{12(12)(12+1)[4(1000)+116]} = \frac{1599408}{7705152} = 20.76\%$$

These approximation formulas should not be used if there is any variation in the amounts of payments or in the time periods between payments--for example, balloon payments or extended first payment loans.

Note: Some lenders charge fees for a credit investigation, a loan application, or for life insurance. When these fees are required, the lender must include them in addition to the finance charge in dollars as part of the APR calculations.

EXAMPLE 10

Bank A offers a 7% car loan if you put 25% down. Therefore, if you buy a $4,000 auto you will finance $3,000 over a three-year period with carrying charges amounting to $630 (7% x $3,000 x 3 years). You will make equal monthly payments of $100.83 for thirty-six months. Bank B will lend $3,500 on the same car. You must pay $90 per month for forty-eight months. Which of the above quotes offers the best deal? (Use the constant-ratio formula).

The APR calculations (using the constant-ratio formula) follow:

Bank A:

$$\text{APR} = \frac{2MC}{P(N+1)} = \frac{(2)(12)(630)}{3000\,(36+1)} = \frac{15120}{111000} = 13.62\%$$

Bank B:

$$\text{APR} = \frac{2MC}{P(N+1)} = \frac{(2)(12)(820)}{3500\,(48+1)} = \frac{19680}{171500} = 11.48\%$$

In the case of Bank B, it was necessary to multiply $90 x 48 months to arrive at a total cost of $4,320. Therefore, the total credit cost is $820 ($4,320 - $3,500). Based on the APR, you should choose Bank B over Bank A.

Is it a Good Idea to Obtain a Home Equity Loan?

Interest incurred on your first and second homes are deductible for tax purposes. The home equity loan comes in two forms: a second trust deed (mortgage) and a line of credit.

- *Second trust deed*. A second trust deed is similar to a first trust deed (mortgage), except that in the event of foreclosure, the holder of the first mortgage has priority in payment over the holder of the second mortgage.
- *Line of credit*. Under the line of credit provision for an equity loan, you may write a check when you need funds. You are charged with interest only on the amount borrowed. Before you join the rush to a home equity loan, you should consider the pluses and minuses of the home equity loan.

Advantages of Home Equity Loan

- Low interest rates, because (a) the loan is secured by your house, and (b) it usually bears variable rates.
- No loan processing fees. You do not have to go through a loan application and incur fees each time you borrow money.
- Convenience. You may write a check only when you need money. You are charged interest only on the amount borrowed.

Pitfalls

- High points. Points imposed on an equity loan are based on the amount of the credit line, not on the amount actually borrowed. Many home equity loans have no caps on interest rates.
- Long payback period. It is convenient to have to pay a small minimum amount each month, but stretching out the loan payback period usually means higher interest rates over the period.
- High balloon payments. Some loans require a large balloon payment of the principal at the end of the loan period.
- Risk of home loss. Unlike other loans, you risk losing your home. You may not be so lucky to sell your home fast enough and at fair market price to be able to meet the balloon.
- Frivolous spending habit. You may get into the habit of spending on unnecessary things. Use home equity loans very conservatively. You may easily end up borrowing up to the limit and struggling through each month with heavy repayment burden. Don't forget: Your home - and the equity it represents -is probably your biggest investment. Anything borrowed against it must be repaid upon its sale. You could lose your home if your equity line becomes greater than your ability to pay it back.

Recommendation: You should shop around and carefully compare the various equity loan alternatives in terms of each of the above pitfalls. You could obtain a traditional second trust deed.

Paying Off a Loan Early

Most lenders allow you to pay off a loan before its scheduled maturity without prepayment penalty. In fact, they will refund your interest charges. The question then is: How early should you pay off your loan? The key is that you should know your interest savings prior to a prepayment decision, because you might be better off investing the funds elsewhere rather than prepaying the loan. You might think you save an equal amount of interest each month.

Unfortunately, lenders compute interest differently. They use the Rule of 78s--sometimes called the Sum of the Digits, which results in your paying more interest in the beginning of a loan when you have the use of more of the money, and less and less interest as the debt is reduced. Therefore, it is important to know how much interest you can save by prepaying after a certain month and how much you still owe on the loan.

EXAMPLE 11

You borrow $3,180 ($3,000 principal and $180 interest) for 12 months, so your equal monthly payment is $265 ($3,180/12). You want to know how much interest you save by prepaying after six payments. You might guess $90 ($180 x 6/12), reasoning that interest is charged uniformly each month. Good guess, but wrong. Here is how the Rule of 78 works.

First, add up all the digits for the number of payments scheduled to be made, in this case the sum of the digits 1 through 12.

(1+2+3...+12=78).

Generally, you can find the sum of the digits (SD) using the following formula:

SD = n(n+1)/2 =12(12+1)/2 =(12)(13)/2 =156/2 =78

where n=the number of months. (The sum of the digits for a four year (48 months) loan is 1,176 [(48)(48+1)/2=(48)(49)/2=1,176)].

Refer to Exhibit 4 (Loan Amortization Schedule). In the first month, before making any payments, you have the use of the entire amount borrowed. You thus pay 12/78ths (or 15.39%) of the total interest in the first payment. In the second month, you pay 11/78ths (14.10%); in the third, 10/78ths (12.82%); and so on down to the last payment, 1/78ths (1.28%). Thus, the first month's total payment of $265 contains $27.69 (15.39% x $180) in interest and $237.31 ($265 - $27.69) in principal. The 12th and last payment of $265 contains $2.30 (1.28% x $180) in interest and $262.70 in principal.

Exhibit 4
Loan Amortization Schedule
[Based on a loan of $3,180 ($3,000 principal and $180 interest)]

Payment Number	*Fraction (Percent) Earned by Lender*	*Monthly Payment*	*Interest*	*Principal*
1	12/78 (15.39%)	$265	$ 27.69*	$ 237.31**
2	11/78 (14.10%)	265	25.39	239.61
3	10/78 (12.82%)	265	23.08	241.92
4	9/78 (11.54%)	265	20.77	244.23
5	8/78 (10.26%)	265	18.46	246.54
6	7/78 (8.97%)	265	16.15	248.85
7	6/78 (7.69%)	265	13.85	251.15
8	5/78 (6.41%)	265	11.54	253.46
9	4/78 (5.13%)	265	9.23	255.77
10	3/78 (3.85%)	265	6.92	258.08
11	2/78 (2.56%)	265	4.62	260.38
12	1/78 (1.28%)	265	2.30	262.70
78	78/78 (100%)	$3,180	$180.00	$3000.00

*$27.69 = $180.00 x 12/78 (15.39%)

**$237.31 = $265 - $27.69

In order to find out how much interest is saved by prepaying after the sixth payment, you merely add up the digits for the remaining six payments. Thus, using the above formula, 6(6+1)/2=21. This means that 21/78ths of the interest, or $48.46 (21/78 x $180), will be saved.

To calculate the amount of principal still owed, subtract the total amount of interest already paid, \$131.54 (\$180-\$48.46), from the total amount of payments made, \$1,590 (6 x \$265), giving \$1,458.46. Then subtract this from the original \$3,000 principal, giving \$1,541.54 still owed.

Does it pay to pay off after the sixth payment? It depends on how much return you can get from investing elsewhere. In this example, you needed \$1,541.54 to pay off the loan and save \$48.46 in interest. In this example, the interest rate effect after the first was ignored for the sake of simplicity.

Note:

- For loans of longer maturities, the same rules apply, though the actual sum of the digits will be different. Thus, for a 48-month loan, you would pay in the first month 48/1176ths of the total interest, in the second month, 47/1176ths, and so on.
- The earlier you repay the loan, the higher the portion of interest you do save. The rule of 78s favors lenders.

Financing an Automobile

Primary Considerations

What should you consider in financing a car? Recommendation: You may be able to get a better deal on a car loan from another source (e.g., credit union, bank) than you can from the auto dealer. Consider the provisions in the loan agreement regarding prepayment of the loan. Will there be a complete forgiveness of future finance charges if you can repay the loan in advance? What is the interest penalty for late payments? What rights do you have in the event of repossession? Is there an acceleration clause stating that all payments are due immediately if one payment is not made on time?

Above all, be sure you can meet the monthly payments if you buy your auto on credit. The monthly payments should not be more than one-half of your monthly housing costs.

EXAMPLE 12

You buy a car for \$14,000, making a down payment of \$3,000. You will finance the balance at an interest rate of 24 percent, payable monthly over three years.

Cost of auto	\$14,000
Less: down payment	3000
To be financed	11,000

Monthly Interest rate = 24%/12 = 2%
Months 3 x 12 = 36

According to Table 4, "Present Value of Annuity of \$1," when i=2% and n=36 the factor is 25.489. The monthly loan payment is:

$$\frac{\$11{,}000}{25.489} = \$431.56$$

Total loan payments \$431.56 x 36	\$15,536.16
principal	11,000.00
Total interest	\$4,536.16

Exhibit 5 shows what the monthly finance charge will be on a \$1000 loan for a 12-month, 24-month, and 36-month period.

Exhibit 5
Finance Charge for Each \$1000 Loan

Interest	*12 months*	*24 months*	*36 months*
9%	\$49.42	\$96.43	\$144.79
10	54.99	107.48	161.62
11	60.58	118.59	178.59
12	66.19	129.76	195.72
14	77.45	152.31	230.39
16	88.77	175.11	265.65
18	100.16	198.18	301.49

Should You Select a Rebate or Lower Finance Charge?

To clear inventories, auto manufacturers (e.g., General Motors) may offer you an incentive to buy a car, in the form of a rebate or lower interest cost. Which is financially more attractive? Typically, the lower financing cost should be selected.

EXAMPLE 13

General Motors is offering an \$18,000 car at either a rebate of \$750 or financing at 1.9 percent. If the financing alternative is taken, a down payment of 10 percent is required. You can earn 8 percent on your money. Computations follow:

Savings from rebate		\$750
Savings from low finance charge		
Amount subject to financing	\$16,200	
Net interest earned (8.0% - 1.9%)	x 6.1%	\$988
Net advantage with financing the car		\$238

Let the Buyer Beware: The dealer may be deceiving you in implying that something of real value is being offered. When cars have been held in inventory for some time, they are often sold at a lower price, to make room. The dealer may be discounting the car \$800 anyway. But because of the promotion incentive, the price of the car is usually not discounted the typical amount. In effect, you may be saving only $188 ($988 minus $800).

Bankruptcy Law

A legal process, bankruptcy, is available for individuals who are overextended financially and are unable to pay their debts. They can file for bankruptcy if they seek to legally eliminate some or all of their debts.

Under Chapter 7 of the Bankruptcy Law, often called *straight bankruptcy*, the intent is to liquidate assets to pay the debts. Should this method be elected, the bankrupt can claim certain property as "exempt" and this property can be retained to preserve the basic necessities of life (such as a certain amount of equity in their home, economical car, and personal clothing and effects.) Once a person has declared bankruptcy, he or she cannot be discharged from debts again for six years.

Under Chapter 13, often called *wage-earner plans*, the assets are not liquidated. Instead, interest and late charges are eliminated and arrangements are made to pay off some or all of the debts over several years.

Chapter 11 is for individuals who do not qualify for Chapter 13 reorganization—either because they exceed the debt limitations or do not have a regular source of income—but who wish to try to restructure their debt.

Bankruptcy will not discharge all the debts. Debts that cannot be eliminated through bankruptcy proceedings include income taxes, child support, alimony, student loans, debts incurred under false pretenses.

Note: The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (Public Law 109–8) made the most sweeping changes in a generation, affecting both consumer and business bankruptcies. Under the bill, debtors who earn at least the median income in their state may be refused Chapter 7. Instead, they will have to file under Chapter 13, in which you have to use some of future income to repay a portion of your credit card bills and other unsecured debt over five years. Debtors with car loans would have to repay the loan in full, if they want to keep the car.

Bankruptcy should not be taken lightly. Be sure to consult an attorney on various decisions surrounding the issue and the new law and on how to get the greatest benefit from the new financial start. Key features are summarized below.

1. Those with income above their state's median income who can pay at least $6,000 over five years - $100 a month - will be forced into Chapter 13, requiring a repayment plan.
2. Only $5,000 per child is protected in education savings.
3. One cannot exempt more than $125,000 in home equity unless she has resided in a state for three years and four months.
4. One must file numerous forms, such as tax returns, which then become public documents.
5. People seeking bankruptcy protection are required to take credit counseling courses.

6. It gives priority to a spouse's claims for child support among creditors' claims on a debtor in bankruptcy.
7. Special accommodations are made for active-duty service members, low-income veterans and those with serious medical conditions in the new income test for bankruptcy applicants.
8. It requires billing statements for credit card accounts to include an example of how long it would take to pay off a balance at a specific interest rate if only minimum payments are made.

Online sources of more information about bankruptcy and the new bankruptcy law:

www.abiworld.org. From the American Bankruptcy Institute home page, click on "Online Resources," then "Legislative News," then "New Bankruptcy Law." The site lists provisions of the law that have already taken effect and has links to the full text of the law and a report focusing on the specifics. The institute also provides a series of online seminars, for a fee.

www.360financialliteracy.org. The financial literacy site of the American Institute of Certified Financial Planners. Search for "bankruptcy".

There are many Federal laws in place to protect your rights when you interact with your credit card company. Here are some of these important laws and protections you should know:

- The **Credit CARD Act** (2009) provides many consumer credit protections. For example, your credit card company generally cannot increase the rate on your existing balance and must tell you forty-five days before increasing the rate for new transactions. The Act also places new limits on fees and rate increases and requires consistency in payment dates and times. See Truth in Lending Act.

  To learn more about your rights under the CARD Act, read the summaries of the Federal Reserve Board's new credit card rules, "What You Need to Know: New Credit Card Rules Effective Feb. 22" and "What You Need to Know: New Credit Card Rules Effective Aug. 22."

- The **Consumer Credit Protection Act** (1969) is an umbrella consumer protection law that includes the Equal Credit Opportunity Act, the Fair Credit Billing Act, the Fair Credit Reporting Act, and the Truth in Lending Act. The Truth in Lending Act requires a lender to disclose the effective annual percentage rate and as well as any finance charges in dollars to the borrower.

- The **Equal Credit Opportunity Act** (1974) prohibits discrimination in credit transactions on the basis of certain personal characteristics, such as race, color, religion, national origin, sex, marital status, age, because you receive public assistance, or because you've exercised your rights under the Consumer Credit Protection Act.

- The **Fair Credit Billing Act** (1974) requires that a credit card company promptly credits your payments and corrects mistakes on your bill without damage to your credit score. It also lets you dispute billing errors on your credit card and withhold payment for damaged goods. See Truth in Lending Act.

- The **Fair Credit and Charge Card Disclosure Act** (1988) requires a lender offering you a credit card to tell you about certain terms on the card, such as the APR, the amount of any annual fee, and whether you have an interest-free period to pay your bill before any interest charges are added. See Truth in Lending Act.
- The **Fair Credit Reporting Act** (1970) protects you against inaccurate or misleading information in credit files maintained by credit reporting agencies. It requires that you must be told what's in your credit file and have the ability to correct any errors.
- The **Fair Debt Collection Practices Act** (1977) details the rules a debt collector must follow when trying to collect a debt from you. It prohibits collectors from engaging in abusive debt-collection practices, such as calling you outside of the hours of 8:00 a.m. to 9:00 p.m. local time or communicating with you at work after they have been advised that this is unacceptable or prohibited by the employer.
- The **Truth in Lending Act** (1968) requires that lenders use uniform methods for computing the cost of credit and for disclosing credit terms so you can tell how much it will cost to borrow money. It also limits your liability to $50 if your credit card is lost, stolen, or used without your authorization, and it prohibits the unsolicited issuance of credit cards. The Fair Credit Billing Act and the Fair Credit and Charge Card Disclosures Act were later additions to the Truth in Lending Act, as are many provisions of the Credit CARD Act.

You can find more information on consumer regulations in the Federal Reserve Consumer Help's list of Consumer Protection Laws or the Board's list of regulations.

Conclusion

People have different attitudes toward credit. Some people think credit is “good’; others say credit is “bad.” But one thing is clear. Too much credit is bad. Too much debt may lead to personal disaster and bankruptcy. It’s essential to manage credit wisely and judiciously: you want to obtain just the amount of credit for your needs, and to shop around to get the “best deal” on a credit card. If you know how to manage and control debt, you can, in effect, increase your return through the use of leverage. Balance the advantages and disadvantages of credit in deciding whether or not to use it. Take steps to keep a credit record. If a credit problem arises, try to work it out with the lender first. And then try to seek the assistance of a credit counselor.

Debt Management Websites

Here are popular websites for debt management. Use the Web to get confidential advice on debt management or bankruptcy. You can even arrange for a service to negotiate with creditors and set up payment plan.

The National Foundation for Credit Counseling
www.nfcc.org
It is a trustworthy organization to contact in order to find local non-profit credit counselor(s)

Money Management International
http://www.moneymanagement.org/
The site will help you assess and prioritize your debts, establish a pay-off plan, and develop financial goals.

About.com Credit/Debt Management
http://Credit.about.com
The credit-and debt-management channel run by financial consultant Michael Killian provides advice on how to deal with creditors. There are discussion boards and links to articles like "What to do if your husband leaves you with a mound of debt?" Find out about budgeting and credit repair. There is also information on consolidating your debts; Moving debt from one credit card to another with a lower interest rate doesn't necessarily lower your total payments.

Get Out of Debt
www. http://getoutofdebt.org/
An information-packed site that runs a debt management website.

Nolo.com
www.nolo.com
Need to improve your credit rating? Nolo suggests making purchases with a credit card and then paying off the bill. The Debt & Bankruptcy channel of this authoritative legal site also offers advice on which bills you should pay (mortgage payments) and which can wait (legal bills). Click on Bankruptcy to discover how to get out of debt, deal with annoying bill collectors and whether to file for Chapter 7 and 13.

www.annualcreditreport.com
You can get a free credit report a year.

Chapter 8 Review Questions

1. The cost of credit cards includes late-payment fees and charges for exceeding your credit limit. True or False?

2. Danger signals of potential debt problems do NOT include:

   A. Paying off balance each month
   B. Paying only minimum balance each month
   C. Increasing total balance due of credit card each month
   D. Using overdraft or automatic loans frequently

3. The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 created fewer restrictions for consumers wanting to file for bankruptcy under Chapter 7. True or False?

4. ______________________________ prohibits credit discrimination based on sex and marital status.

   A. Fair Debt Collection Practices Act.
   B. Equal Credit Opportunity Act.
   C. Fair Credit Reporting Act
   D. Fair Credit Billing Act

5. Truth-in-lending is one form of price standardization that, since the adoption of the Consumer Credit Protection Act on July 1, 1969, has been provided by U.S. government regulations. The purpose of this legislation is to

   A. Regulate the amount of interest that may be charged.
   B. Allow immediate wage garnishment by creditors.
   C. Disclosure of the finance charge and the annual percentage rate.
   D. Prohibit the use of usurious interest rates.

6. The Equal Credit Opportunity Act prohibits

   A. Regulating the action of credit bureaus that give out erroneous information to consumers.
   B. Redlining and disinvestments in central city areas.

C. Discrimination by lenders on the basis of sex or marital status.
D. Providing insurance coverage for those people suffering both real and person property losses as a result of floods.

7. Chapter 7 is also called

A. Wage-earner plans.
B. Reorganization plans.
C. Straight bankruptcy.
D. Loan modification plans.

Chapter 8 Review Answers

1. The cost of credit cards includes late-payment fees and charges for exceeding your credit limit. True or False?

> **True is correct.** Late-payment fees and charges for exceeding your credit limit may be hidden and substantial.
>
> False is incorrect. In evaluating credit cards, consider: interest rates and annual fees, grace periods, transaction fees, and other fees such as late-payment fees and charges for exceeding your credit limit.

2. Danger signals of potential debt problems do NOT include:

   A. **Correct.** To avoid potential debt problems is to pay off balance each month. Danger signals of potential debt problems include: Paying only the minimum balance on credit card bills each month; Increasing the total balance due on credit accounts each month; Intentionally using the overdraft or automatic loan features on checking accounts or taking frequent cash advances on credit cards
   B. Incorrect. Paying only the minimum balance on credit card bills each month will result in higher interest payments.
   C. Incorrect. Interests will compound on higher credit card balance.
   D. Incorrect. Intentionally using the overdraft or automatic loan features on checking accounts or taking frequent cash advances on credit cards will add other fees such as sizable cash advance fees and charges for exceeding your credit limit.

3. The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 created fewer restrictions for consumers wanting to file for bankruptcy under Chapter 7. True or False?

> True is incorrect. The Act made it more difficult to file for Chapter 7.
>
> **False is correct.** Under the bill, debtors who earn at least the median income in their state may be refused Chapter 7. Instead, they will have to file under Chapter 13, in which you have to use some of future income to repay a portion of your credit card bills and other unsecured debt over five years.

4. ______________________________ prohibits credit discrimination based on sex and marital status.

A. Incorrect. Fair Debt Collection Practices Act prohibits abusive, deceptive, and unfair practices by debt collectors.
B. **Correct.** Equal Credit Opportunity Act prohibits credit discrimination based on sex, race, and marital status.
C. Incorrect. Fair Credit Reporting Act requires disclosure to consumers of the name and address of any consumer reporting agency that supplied
D. Incorrect. Fair Credit Billing Act requires creditor to promptly credit customers' accounts and to return overpayments if requested.

5. Truth-in-lending is one form of price standardization that, since the adoption of the Consumer Credit Protection Act on July 1, 1969, has been provided by U.S. government regulations. The purpose of this legislation is to

A. Incorrect. The Consumer Credit Protection Act merely requires disclosure. It does not regulate interest rates.
B. Incorrect. The act had nothing to do with wage garnishment.
C. **Correct.** The Truth-in-Lending Act applies to creditors that extend consumer credit to individual debtors (not organizations) in amounts of $25,000 or less. For a closed-end credit transaction, e.g., the typical car loan, the total finance charge, annual percentage interest rate, amount financed, late charges, security interest held by the creditor, the number and mounts of payments, due dates, and the total amount of payments must be disclosed. Open-end credit transactions, such as those involving credit cards, also have specific, detailed disclosure requirements.
D. Incorrect. The Consumer Credit Protection Act merely requires disclosure. It does not regulate interest rates.

6. The Equal Credit Opportunity Act prohibits

A. Incorrect. Regulating the action of credit bureaus that give out erroneous information to consumers is part of the Fair Credit Reporting Act.
B. Incorrect. Redlining and disinvestments in central city areas is part of the Community Reinvestment Act.
C. **Correct.** The Equal Credit Opportunity Act prohibits discrimination by lenders on the basis of sex or marital status.
D. Incorrect. Providing insurance coverage for those people suffering both real and person property losses as a result of floods is part of the National Flood Insurance Act.

7. Chapter 7 is also called

A. Incorrect. The wage-earner plans are Chapter 13, under which the assets are not liquidated. Instead, interest and late charges are eliminated and arrangements are made to pay off some or all of the debts over several years.
B. Incorrect. Chapter 11 and Chapter 13 are reorganization plans.
C. **Correct.** Under Chapter 7, often called straight bankruptcy, the intent is to liquidate assets to pay the debts.
D. Incorrect. Loan modification plans are the government's efforts to save many homeowners from possible foreclosure in the current financial crisis.

Chapter 9:

How to Reduce the Costs of Living

Learning Objectives

After reading this chapter you will be able to:

- Identify ways to save on living costs.
- Recognize leasing decisions and rule.

There are many ways to save on living costs. When you purchase an automobile, you must calculate its real cost and search for ways to cut operating costs. You might also want to decide whether to purchase or lease. You can also do something about the food budget. Clothing can be expensive but there are several things you can do about it. With the rocketing costs of health care, steps must be undertaken to control costs. Finally, marital status is an important ingredient in cost control.

Reducing the Cost of Living

What Can You Do to Reduce Costs?

- Sound financial planning and management requires you to develop weapons to protect against increasing costs. The ways to reduce living costs are:
- Shop for the best buy without forgetting quality.
- Redeem manufacturer or store coupons.
- Watch for "real" sales and specials.
- Stock up when you can get good buys.
- Buy through on-line stores (electronic malls).
- Look for good warranties, service, and return policies.
- Buy low-maintenance items.
- When making home repairs, obtain competitive bids from three contractors.
- Buy generic brands rather than name brands.

- Always pay your credit card balance on time because of the high finance charge.
- Use direct dialing and make calls during "low rate" periods (for example, weekends).
- Save on electric bills by turning off lights, heating, and air conditioning in unused rooms.
- Change to less costly versions of higher cost goods and services (for example, use public transportation rather than an automobile).
- Buy discounted gasoline, which is for the most part indistinguishable from advertised gasoline. Also use self-service rather than full-service.
- Have a checking account at a bank that does not charge for checks and pays interest on the checking balance.

How to Save on Automobile, Boat or Other Major Acquisitions?

There are many ways to save on a major acquisition, such as an automobile or boat.

You may save money when buying a major asset by paying cash rather than buying on credit, which typically involves finance charges.

Other merchants may permit a grace period to pay and still obtain a discount from the list price.

In many instances, brand-name goods can be bought from a discount store for less than the retail price in a regular store.

When a discount is offered for early payment on a major acquisition, it is usually financially advantageous to pay within the discount period to obtain the discount. For example, if the terms of purchase are 2/10, net/30, you get a 2 percent discount if you pay within 10 days. In any event, you have to pay for the item by the thirtieth day.

Sometimes you have a choice of paying cash or buying on an installment plan. The installment plan typically costs more money, since you can pay the purchase out over a longer period.

EXAMPLE 1

You can buy a range for a cash price of $45,000 or buy it on an installment purchase plan paying $5,000 down and 48 monthly payments of $900. If you take out the installment plan, your extra cost is:

Installment plan [$5,000 + 48($900)]	$48,200
Cash payment	$45,000
Extra cost	$3,200

The guidelines in buying a major item are:

- Establish a maximum price you are willing to pay, and how it will impact your current budget.
- Find out about the quality of the major item (for example, refer to Consumer Reports).
- Try to buy a major item the dealer has had in stock for some time since he or she may want to readily sell it.
- Compare prospective major items in terms of price and quality.

Automobiles

- Calculate the monthly purchase cost. Be sure you can meet the monthly payments for credit purchases. Rule of thumb: The monthly payments for an auto should not be more than one-half of your monthly housing costs.
- Determine the expected increase or decrease in cost per month to drive (or cost per mile) to drive the car (including gasoline, insurance, maintenance, etc).
- Estimate the life of the car.
- Estimate the trade-in value. For example, some autos have a better trade-in value than others. Cars that are standardized (same features) generally have a better resale value. Also, certain car options, such as air conditioning boost the resale value of the vehicle.
- Avoid buying options since the dealer markup on them is often two to three times the profit margin on the car or boat itself. Wherever practical, you may be able to have the options installed more cheaply at a discount auto supply store.

The areas to save money with an automobile are purchasing, financing, running, repairing, and selling.

- The cost of automobile ownership depends upon the size of the car (affecting initial cost) and the number of years of use. For example, a subcompact may cost one-third less than a standard-size model. Savings in cost per mile can arise by purchasing a smaller, less expensive automobile and holding the car for a long time. It is much more expensive to buy a new car every year.
- The annual operating costs of an automobile include gasoline, oil, tires, replacement parts, general maintenance, insurance, registration fees, and depreciation representing the difference between the original cost less the trade-in value divided by the number of years of use. Expenses for an auto used for business purposes are tax deductible.
- The ways to improve gas mileage and reduce costs are to buy a small car or a hybrid since it uses less gasoline, and involves lower insurance premiums; and drive economically (45 to 50 miles per hour). It is usually cheaper to finance and insure the car separately, not from the car dealer.
- Are you thinking of buying a used car? The best-used car is one that is no more than 3 years old because then things start breaking down. The benefits of used cars versus new cars are lower purchase prices and lower ownership and operating costs.
- Depreciation is highest in the earlier-years of owning the car and lowest in the later years. However, maintenance charges do increase over the life of the car. In the earlier years, financing costs are higher. Insurance costs decrease in later years since the value of the car diminishes.

- It is usually cheaper to repair a car and use it than trading it in for a new one. The ways to save on auto repairs are
    - Get a detailed estimate of the job.
    - Get a time/mileage warranty for services performed.
    - Try to use your repair station regularly since regular customers are typically treated better.
    - Tell the mechanic clearly what is wrong. This will save the mechanic's time in trying to find out what the problem is.
    - Smaller engines not only cost you less initially but also result in maintenance savings.
    - Have periodic checkups.

The ways of reducing auto insurance costs are:

- Insurance coverage is about 20 percent of the overall auto expenditure for the year. Insurance rates are higher for young drivers in urban population centers.
- Insurance rates increase if you are under 25, have traffic violations, and accidents. Accidents may not cost you penalty points for insurance purposes if you were legally parked, reimbursed by the other driver, you were "hit" from the rear, the other driver was given a traffic summons but not you, there was a hit-and-run, etc.
- Take an accredited driver education course (this may also reduce penalty points on a license in some states).
- If the auto is more than 5 years old or worth less than $1,000, collision and comprehensive coverage may be dropped because you may be paying more in premiums and deductibles than you will collect in insurance money if you have to file a claim. Together, they typically make up about 30% to 40% of an auto-insurance premium, according to the Insurance Information Institute, or, say, about $240 to $320 on an $800 annual charge.
- If you are over 65 years of age, numerous states will give you lower insurance rates.
- Take out coverage for emergency towing. For a minimal premium, you are typically covered from $25 to $50 for towing charges.
- Insurance discounts may be given if the auto possesses certain items, such as various types of bumpers, air bags, antitheft devices, antilock brakes, and child safety seat. A discount is also typically given for a "clean" driving record.
- Do not file a collision claim when your loss is marginally above the deductible because insurance rates may go up.
- If your child takes one of the cars to a college where accidents and thefts are less likely, a reduction in the premium may be given.

WHAT DOES THE NEW CAR REALLY COST?

When buying a new car, choose your car first. . A good place to start is at www.Edmunds.com or www.kbb.com, which offers what it calls "true market value." That's a measure of what people are actually paying for the car you want in your part of the country. That shouldn't be considered the bottom. Some folks overpay. And dealers get other breaks and rebates from the auto manufacturers, so the invoice price you often see quoted isn't really the bottom-line dealer cost. A typical car costs the dealer 85 percent to 90 percent of the sticker price. Domestic compacts and subcompacts are closer to 90 percent. Optional equipment usually costs the dealer about 85 percent of the sticker price.

To determine the cost of your new car subtract the trade-in value of the old car from the price of the new car and then add other charges (for example, taxes). An extended warranty contract is an added cost. To get the true value of your trade-in, go back to Edmunds and price it. If there's a CarMax near you, go there and see how much it will pay for your car. CarMax (www.carmax.com) will give you a written offer on your car that is good for seven days. That's the minimum you'll take from the dealer, after you've settled on a purchase price for the car you're buying.

Some guidelines as to the extra cost of options as a percentage of the purchase price of the car are larger engine (about 5 percent), automatic transmission (about 3 percent), air conditioner (about 10 percent), power steering and brakes (about 4 percent), vinyl roof (about 3 percent), and power windows (about 3 percent).

Determining a Reasonable Price for a New Car

Wholesale price including options	$16,000
Destination charge	$750
Local dealer preparation	$100
Dealer's cost	$16,850
Plus: dealer's profits (10% on cost)	$1,185
Selling price	$18,035
Sales tax at 8%	$1,143
Title Cost	$30
Buyer pays	$19,508

The initial cost of an auto is a far more important factor in determining the economy of a car than miles per gallon.

Whether you are buying or leasing a vehicle, these tips will help you get the best deal and avoid problems.

- **Check out different vehicles**. Do your research first and compare vehicles. You can go to the website of every car manufacturer and review every model of car available. In fact, most manufacturer sites will even let you use drop down menus to "build" an electronic version of your dream car. Then, when you decide which model, colors, and accessories you want, you can hit the locate dealer button and find the closest showroom that has your car.
- **Research the dealer's price for the car and options**. It's easier to get the best price when you know what the dealer paid for a vehicle. The dealer invoice price is available at a number of websites and in printed pricing guides. Consumer Reports provides the wholesale price; this figure factors in dealer incentives from a manufacturer and is a more accurate estimate of what a dealer is paying for a vehicle.

- **Special Discounts**. Determine if you qualify for special discounts or rebates for military personnel, students or other qualifying groups.
- **Negotiate**. Negotiate up from the invoice price instead of down from the inflated price to get a good deal.
- **Find out if the manufacturer is offering rebates that will lower the cost**. Two websites that offer this information are Carsdirect.com and Autopedia.com.
- **Get price quotes from several dealers**. Find out if the amounts quoted are the prices before or after rebates are deducted.
- **Avoid low-value extras** such as credit insurance, auto club memberships, extended warranties, rust proofing and upholstery finishes. You do not have to purchase credit insurance in order to get a loan.
- **Hybrid-electric cars** are becoming popular among consumers interested in fuel economy and reducing their negative impact on the environment. These cars combine the benefits of gasoline engines and electric motors and can be configured to achieve different objectives such as improved fuel economy, increased power, or additional auxiliary power.

To remove some roadblocks to a good card deal, note the following steps:

- Check your credit and clean it up if necessary. That's a step most auto shoppers don't take, according to a survey by Aware, an association of auto lenders. Its website, www.autofinancing101.org, offers information about auto financing. You can get one free credit report a year at www.annualcreditreport.com. If you see mistakes, get them fixed. If your cards are charged to the max, trim your balances and make timely payments.
- Get a loan quote. Call your credit union, bank or other finance company before going to the showroom.
- Do the math. Using the Edmunds fair-value price, the CarMax trade-in offer and your loan quote, figure out the total cost of the car, including all the interest payments you'll make until it is paid off and you own it. That's the number you should keep in mind while you're shopping.

Should You Buy or Lease a Car?

Payments for leases are getting cheaper, enticing more people to forgo a four-year auto loan. But not everyone is a good candidate for a lease. To find out how you stand, take the following quiz. Note that a majority of yes answers means that you should consider a lease; a majority of no answers suggests buying is the better option:

1. Are car payments a comfortable part of your monthly budget? If you always have car payments because you begin cruising showrooms for a new car before the old one is paid off, leasing can be a smart move.
2. Can you qualify for a lease? Because little or no down payment is required, higher credit standards apply than when you buy. Your gross income probably needs to be at least double the price of the car you want. Two years at your current job is a likely requirement, too.

3. Are you ready to play by the rules of leasing? You must know what's behind the payment to compare different offers. There are four basic components, all of which are negotiable:
   a. The term of the lease, typically 24-48 months.
   b. The capitalized cost of the car, which is the equivalent of the sales price.
   c. The residual, which is essentially how much the leasing company thinks the car will be worth at the end of the term. The higher the residual, the lower your payment
   d. The money factor, which is essentially the interest rate built into the lease.
4. Are you willing to do the legwork to find the right lease? It's just as important as when you buy a car.
5. Is 15,000 miles adequate for your annual driving needs? Most contracts levy an excess-mileage charge of 10-20 cents a mile above that.
6. Do you take excellent care of your cars? You are responsible for all maintenance and repairs and will have to pay for any "excess wear and tear" at the end of the lease.
7. Are you sure you'll stick with the lease for the full term? If you want to get out of the contract early, you'll pay dearly. Carefully study the "early termination" provisions.

Also, to decide whether you are better off leasing or buying a car, you may have to determine the costs of leasing versus buying.

EXAMPLE 3

You can lease a car for $300 per month. Sales tax is 6 percent. The lease will be for 36 months. You can buy the same car for $15,000. $12,500 of the purchase price can be financed at 8 percent for 36 months. Monthly payments would be $392. Although licensing costs of $100 per year is included in the lease, you would have to pay them if you bought the car. The salvage value of the car at the end of 36 months would be $8,000.

Monthly lease payment	$300
Sales tax (6% x $300)	18
Monthly cost	$318
	x 36 months
Total cost for leasing 36 months	**$11,448**
Monthly payment	$392
Total payments ($392 x 36)	$14,112
Down payment	2,500
Sales tax (6% x $15,000)	900
License cost ($100 x 3)	300
Cost of buying	$17,812
Less: Salvage value	8,000
Total cost of buying	**$9,812**

It is $1,636 ($11,446 - $9,812) cheaper to buy than lease.

Note: For the sake of simplicity, the time value of monthly mortgage payments was not considered.

Car Loans

You may be able to get a better deal on a car loan from another source (for example, credit union, bank) than from the auto dealer. Consider the provisions in the loan agreement regarding prepayment of the loan. Will there be a complete forgiveness of future finance charges if you can repay the loan in advance? What is the interest penalty for late payments? What rights do you have in the event of repossession? Is there an acceleration clause where all payments are due immediately if one payment is not made on time?

Renting a Car

Typically, auto rental companies hold you responsible for damage to the rental car, sometimes up to its full value, unless you take out collision coverage that may cost $7 to $9 a day. However, the policy on your owned car may cover insurance on the rented car. In addition, some credit cards automatically provide supplemental collision-damage coverage on rental cars paid for with the card.

Note that the rental car company's insurance will cover your legal liability in the event there is injury or property damage while driving the car. The rental company's insurance will also pay if an accident was caused by its negligence (for example, an improperly functioning car). If the rental company's insurance is inadequate, the liability coverage on your car will protect you up to the policy's limits.

Other Items

Food Costs

The ways to save on food costs are prepare a well-planned shopping list and do not buy an item not on the list except if there is an advertised special you will eventually need; do not shop when you are hungry; use discount coupons; shop at discount, "no frills" supermarkets; check the prices on "no frills" items that can save you as much as 30 percent (the quality of the unmarked brand may be almost as good as the national brand); substitute for rising cost items, similar ones where prices are remaining steady (for example, substitute cereal for meat); and the bottom shelves may have lower prices on the items because stock people may not want to bend to re-price them. However, bottom-shelf merchandise may not be as fresh as top-shelf merchandise.

Clothing Costs

Clothing costs are a material expense that can be curtailed. The ways to cut clothing costs are follow clothing care labels, avoid items that will discolor clothing, have protection in bad weather (for example, umbrella), hang up clothes after you take them off, have an air freshener in the closet, and launder or dry clean soiled clothes immediately.

Airline Tickets

In general, the cheapest days and times to fly are Tuesday, Wednesday, and Saturday afternoon, when airlines usually have the weakest demand for tickets. When you shop for tickets can affect the price as well. The worst time to shop is on the weekend -- just the time many people are also shopping. Some helpful sites are: www.Orbitz.com , www.Kayak.com , and www.Mobissimo.com.

Warranties and Service Contracts

Does it pay to take out an extended warranty? In financial terms, it generally does not. Typically, the repairs would cost less than the cost of taking out the warranty. The warranty varies depending upon the policy of the dealer and manufacturer. An extended warranty may also be taken out through the use of a credit card (for example, American Express). However, many people will take out an extended warranty for peace of mind knowing that if a major repair is needed they will be covered. Thus, personal preferences have to be considered. But, of course, taking out a policy for a low-priced item may be inappropriate. For example, taking out a $100 extended warranty for a $500 TV set is ridiculous.

Marital Status and Personal Finance

If you are living with someone, inquire with a lawyer as to how you should establish your status in the particular state with regard to the lease, insurance policy, will, etc. Keep careful records of who is entitled to what in case of separation.

If your spouse decides to get a job, the second income is lessened after taking into account the extra withholding tax, social security tax, and income tax.

You may be able to package your fringe benefits to get the best from one employer. For example, you may take the best health care package from the husband's employer and the best disability plan from the wife's employer.

You may need a second car for the working spouse. Also, auto insurance premiums will increase. Child-care costs will have to be incurred. However, you can get a child-care credit on your income tax.

Divorce. It may cost you more to live alone than with your spouse if you must pay alimony and child support. The same money has to cover the costs of two households rather than one. Rule of thumb: A husband without children and with a nonworking wife may have to pay between 20 to 25% of gross income as alimony. If there are children, alimony and child support may total as much as 40 percent of gross income. Alimony payments are tax-deductible to the former spouse who pays them and taxable to the former spouse who receives them. Child support is typically paid to a child until he or she reaches the age of 21. Child support is not tax deductible.

Useful websites

www.edmunds.com

www.kbb.com (Kelly Blue Book)

www.nhtsa.gov (The National Highway Traffic Safety Administration's Web site for recalls and crash test ratings.)

www.leasesource.com

www.autobytel.com

www.truecar.com

www.bbb.org (Contains information concerning buying or leasing an automobile or obtaining auto insurance.)

www.carmax.com

www.autofinancing101.org

Chapter 9 Review Questions

1. Some of the ways to reduce the living costs do NOT include:

  A. Shop for the best buy
  B. Redeem manufacturer or store coupons
  C. Buy name brand items
  D. Watch for “real” sales and specials

2. If you purchase a stove for cash of $450 or buy on the installment plan and pay $50 down and $40 per month for 12 months, your extra cost for the installment plan is:

  A. $30
  B. $50
  C. $40
  D. $80

3. One of the guidelines to consider in buying an automobile is the expected cost per mile driven. True or False?

Chapter 9 Review Answers

1. Some of the ways to reduce the living costs do NOT include:

A. Incorrect. “Shop for the best buy” is always a great strategy for cutting down your living expenses.
B. Incorrect. Use manufacturer or store coupons to save.
C. **Correct.** Buying bane brands rather than generic brands will shoot up your living costs. The ways to reduce living costs are: Shop for the best buy without forgetting quality; Redeem manufacturer or store coupons; Watch for "real" sales and specials; Buy generic brands rather than name brands.
D. Incorrect. “Real” sales and specials will significantly reduce your living costs.

2. If you purchase a stove for cash of $450 or buy on the installment plan and pay $50 down and $40 per month for 12 months, your extra cost for the installment plan is:

A. Incorrect. This is the amount that overlooked your down payment of $50.
B. Incorrect. This is your down payment.
C. Incorrect. This is your monthly payment.
D. **Correct.** Your extra cost is: Installment plan [$50 + 12($40)]=$530- Cash payment ($450) = $80

3. One of the guidelines to consider in buying an automobile is the expected cost per mile driven. True or False?

True is correct. It is important to determine the expected cost per mile driven for cars (including gasoline).

False is incorrect. The guidelines include: (1) determine the expected cost per mile driven for cars (including gasoline) and (2) estimate the life of the car.

Chapter 10:

Where and How You Choose to Live

Learning Objectives

After reading this chapter you will be able to:

- Understand factor in whether to buy or rent a home.
- Recognize the different cost factors for housing.
- Identify key factors in home financing.

Homeownership is perhaps the most sizable investment you will ever make, and it is important the different cost benefits and disadvantages surrounding homeownership.

Home Ownership

Buying vs. Renting a Home

For many people, the decision to buy a home is more emotional than economic. But if you are wondering about whether or not to go on renting, here are some questions to help you answer when renting is right:

- Do you have enough money to put down to buy a home? The initial cost of home ownership can be substantial. For example, for a $100,000 house you should figure on having anywhere between $10,000 to $20,000 (10% to 20%) for the down payment, $3,000 to $6,000 (3% to 6%) for closing costs and a $2,000 cushion for contingencies. Thus, at the time of purchase you will need to pay cash of anywhere between $15,000 and $28,000.
- Are you the roving kind? If you stand a good chance of being relocated in a few years it doesn't make sense to buy because of high borrowing, closing, commission, and moving costs.
- Do you live in an area where renting makes sense? In regions where there is a housing glut and rent controls and values are flat or falling, renting ends up being a bargain.

- Are you lazy or a born renter? Can you deal with maintenance and lawn mowing? Or would you rather leave it up to a landlord by renting? Are you enjoying the appeal of community living and access to amenities such as swimming pools and tennis courts?

The disadvantages of renting are primarily financial and economic. Owning a home is still the best tax-shelter there is. The renter does not receive any federal tax-deductible benefit from rent payments. Also, the rent payment does not contribute to building your equity. You are at the mercy of the landlord.

Homeownership has the following advantages:

- You are building equity due to the appreciation in the value of the home.
- Interest and property taxes are deductible on the tax return.
- Usually owning is less costly than renting.
- You may enjoy extra living space and privacy.
- Single-family homes are usually in better locations than apartments.
- You will have a sense of stability and roots in the community.
- You will enjoy pride of ownership.

Note that the disadvantages of homeownership tend to be the advantages of renting and vice-versa.

In comparing rental and purchase costs, the worksheet in Exhibit 1 can be useful:

Exhibit 1
Comparison of Rental and Purchase Costs

Rental Cost	
Annual rental cost ($850 x 12)	$10,200
Purchase Costs (assuming a 30% tax bracket):	
Add:	
Mortgage Payment ($100,000 @ 10%, 30 years)	10,608
Principal = $608 (approximate)	
Interest = $10,000 (approximate)	
Property Taxes	1,300
Property Insurance	250
Maintenance	400
Cost of lost interest on $20,000 @ 5% (after-tax rate of return)	1,000
Subtract:	
Principal reduction in loan balance	(608)
Tax savings due to mortgage interest deduction ($10,000 x .3)*	(3,000)
Tax savings due to property tax deduction ($1,300 x .3)*	(390)

Net annual after-tax purchase costs	$9,560
Annual Benefit of Buying	$640**

*More precisely, tax savings result if all itemizations exceed the standard deduction.
**Note that the annual benefit does not include appreciation/depreciation in the value of your home.

What Price to Pay?

After you found the house you like, you must decide what price to pay for it. In most cases, there is room between the price sellers ask and the price that they are willing to accept. Make sure that you are not paying more for a property than its market value. Determining the maximum price to pay for the property is not an easy task. Two methods are widely used.

- Have your real estate agent run "comparative-sales" on a computer. The computer should be able to give you recent history of sales in the neighborhood. The price that a subject property can bring must be adjusted upward or downward to reflect the difference between the subject property and comparables. Since this particular approach is based on selling price, not asking price, it can give you a good idea about the market.
- Use an expert. You might want to hire a professional real estate appraiser for a fee. Appraisal is not a science, but a complex and subjective procedure that requires good information about specific properties, their selling prices, and applicable terms of financing. The use of an expert may well be worth the cost if you worry about the possibility of paying too much.

Determining the Monthly Mortgage Payment

The monthly mortgage payment consists partly of principal repayment on a loan and partly of interest charges. It is determined through a loan amortization type of formula. In practice, however, comprehensive mortgage payment tables are available to determine monthly payments. These tables contain monthly payments for virtually every combination of loan size, interest rate, and term. Table 5 of the Appendix provides selected combinations for $10,000 fixed-rate loans.

EXAMPLE 1

You want to find the monthly mortgage payment on a $95,000, 10%, 30-year mortgage (use Table 5). Using Table 5, you need to follow the three steps:

- Step 1: Divide the amount of the loan by $10,000 (that is, $95,000/$10,000 = 9.5)
- Step 2: Find the payment factor for a specific interest rate and loan maturity. The Table 5 payment factor for 10% and 30 years is 87.76
- Step 3: Multiply the factor obtained in Step 2 by the amount from Step 1.
- $87.76 x 9.5 = $833.72
- The resulting monthly mortgage payment would be $833.72.

Note: IRA money can be used for home purchase (see Chapter 17 for details).

How Much Mortgage Will Your Payment Buy?

To determine the size of mortgage your payment can handle, Exhibit 2 provides a quick and handy guide, or you can easily do something similar in a spreadsheet. It assumes a 30-year, fixed-rate loan. This amount is only for mortgage principal and interest and does not include taxes and insurance, etc.

Exhibit 2
The size of mortgage your payment can afford

	Mortgage Interest Rate						
Monthly Mortgage Payment	4%	5%	6%	7%	8%	9%	10%
$500	$104,731	$93,141	$83,396	$75,154	$68,142	$62,141	$56,975
$600	$125,677	$111,769	$100,075	$90,185	$81,770	$74,569	$68,370
$700	$146,623	$130,397	$116,754	$105,215	$95,368	$86,997	$79,766
$800	$167,569	$149,025	$133,433	$120,246	$109,027	$99,425	$91,161
$900	$188,515	$167,653	$150,112	$135,277	$122,655	$111,854	$102,556
$1,000	$209,461	$186,282	$166,792	$150,308	$136,283	$124,282	$113,951
$1,100	$230,407	$204,910	$183,471	$165,338	$149,912	$136,710	$125,346
$1,200	$251,353	$223,538	$200,150	$180,369	$163,540	$149,138	$136,741
$1,300	$272,300	$242,166	$216,829	$195,400	$177,169	$161,566	$148,136
$1,400	$293,246	$260,794	$233,508	$210,431	$190,797	$173,995	$159,531
$1,500	$314,192	$279,422	$250,187	$225,461	$204,425	$186,423	$170,926

How Much Can You Afford to Spend for Housing?

An accurate way to determine what kind of house you can afford is to make two basic calculations: How much can you pay each month for the long-term expenses of owning a home (e.g., mortgage payments, maintenance and operating expenses, insurance and property taxes)? And, how much cash do you have to spend for the initial costs of the purchase (e.g., the down payment, points and closing costs)?

Many lenders use various rules of thumb to determine a borrower's housing affordability. They include:

1. 35-Percent Rule of Thumb. A borrower can afford no more than 35 percent of monthly take-home pay.
2. Multiple of Gross Income Rule. The price should not exceed roughly 2 1/2 times your family's gross annual income.
3. Percent of Monthly Gross Income Rule. Your monthly mortgage payment, property taxes and insurance should not exceed 25-28% of your family's monthly gross income (or about 35% for a

Federal Housing Administration (FHA) or Veterans Administration (VA) mortgage.) The National Association of Home Builders (NAHB) assumes that a family can afford to spend 28 percent of its gross income on housing; this is a conventional assumption in the lending industry.

4. Your debt payments on loans of 10 months or longer, including your mortgage, should not exceed 36% of your gross income (or 50% for an FHA or VA loan.)

EXAMPLE 2

35-Percent Rule of Thumb: Your gross annual income is $33,000 per year and take-home pay is $2,095 per month. At 35 percent, you could afford a monthly payment of $733. For example, with an interest rate of 13 percent and a 30-year term, you could borrow $66,260 (From Table 5, the monthly payment for a $10,000 loan is $110.62. Hence, $733/$110.62 = 6.626, 6.626 x $10,000 = $66,260). Assume that your budget has already provided for property taxes, insurance, and maintenance expenses and you have $20,000 available for a down payment (after point charges and closing costs). You could buy a house that costs about $86,260 ($20,000 + the $66,260 mortgage)

EXAMPLE 3

Multiple of Gross Income Rule: Your annual gross income is $40,000. The maximum price you could afford would be $80,000 (2 x $40,000) to $100,000 (2.5 x $40,000).

EXAMPLE 4

Percent of Monthly Gross Income Rule: You and your spouse have gross income of $60,000 ($5,000 a month). Under the above rule, your monthly mortgage payment, property taxes and insurance should not exceed $1,250 (25% x $5,000) to $1,400 (28% x $5,000). That means you could qualify for a 30-year fixed-rate loan (with 10-20% down) at less than a 12 percent rate.

EXAMPLE 5

Total Debt Payments: You and your spouse have gross income of $60,000 ($5,000 a month). If you have a monthly debt load of $500 or less, you might look for a $120,000 house with total monthly housing payments of about $1,300, since total debt payments of $1,800 ($1,300 + $500) equals or is close to 36% of $5,000 monthly gross income. That means you could most likely qualify for a 30-year fixed rate loan (with 10-20% down) even if interest rates hit 12%.

Exhibit 3 illustrates, step by step, how to analyze housing affordability.

Exhibit 3
Housing Affordability Analysis

		Example A	Example B
Step 1	Determine your monthly gross income	$ 3,000	$ 3,000
Step 2	With a down payment of at least 10 percent, lenders use 28% of monthly gross income as a guideline for TIPI (taxes, insurance, principal and interest), 36% of monthly gross income as a guideline for TIPI plus other debt payments (enter 28% or 36%)	0.28	0.36
		$ 840	$ 1,080
Step 3	Subtract other debt payments (such as an auto loan payment)	0	180
	Subtract estimated monthly costs of property taxes and	0	0
	homeowners insurance	200	200
	Affordable monthly mortgage payment	$ 640	$ 700
Step 4	Divide this amount by the monthly mortgage payment per $1,000 based on current mortgage rates (see Table 5; e.g., for a 10%, 30-year loan, the factor would be $87.76)	87.76	87.76
		7.2926	7.9763
	Multiply the result by $10,000	x $ 10,000	X $ 10,000
	Affordable mortgage amount	$ 72,926	$ 79,763

Does it Pay to Refinance Your House?

Whether refinancing is worthwhile depends on the costs of refinancing and the time required to recoup those costs through low mortgage payments. The costs of refinancing are the closing costs, which can vary widely. Closing costs include:

- Title search
- Insurance (such as hazard, title, and private mortgage insurance)
- Lender's review fees
- Buyer's loan points
- Reappraisal fees
- Credit report

- Escrow fees
- Lawyer fees
- Document preparation fees, judgment reports, notary fees, and recording fees. To get a rough estimate of the closing costs, take the costs of refinancing (3 to 6 percent of the outstanding principal) and multiply it by the amount of the loan.

Rule of thumb: To refinance successfully, you should plan on staying in the house for at least three years and should be able to reduce the rate paid on the mortgage by at least one percentage point.

- If you are a fixed-rate mortgage holder, you might look for another fixed-rate home loan at least two to three percentage points below the mortgage currently held.
- If you have an adjustable loan, you might consider what the expected rate on the adjustable rate mortgage (ARM) will be several years hence. If the current rates on fixed mortgages are substantially below the expected rate on the ARM, it might pay to refinance.

Rule of thumb: When refinancing, consider the amount of time it will take to recoup the costs of refinancing.

Exhibit 4 illustrates mortgage refinancing analysis.

Exhibit 4
Mortgage Refinancing Analysis

1 **Costs of refinancing:**
Points
Application fee
Credit report
Attorney fees
Title search
Title insurance
Appraisal fee
Inspection fee
Other fees

2 **Monthly savings:**
Current monthly mortgage payment
Less: New monthly payment
Monthly savings

3 **Number of months to cover finance costs**
(Refinancing costs (1) divided by monthly savings (2))

EXAMPLE 6

Assume that refinancing is $100,000. A 10 percent mortgage involves closing fees of $3,750, and the new interest rate is 6 percent. At the new rate of 6 percent, the monthly payment on a 30-year fixed loan would be $600. That is a savings of $278 from the monthly payment of $878 required on a 10 percent loan. Dividing the total refinancing cost of $3,750 by $278 gives a recovery period of about 13 months. Exhibit 5 illustrates the monthly and yearly savings from refinancing to a 10 percent 30-year fixed-rate mortgage for $100,000.

Exhibit 5

Savings from Refinancing

Present Mortgage Rate, %	*Current Monthly Payment*	*Monthly Payment At 6%*	*Monthly Savings At 6%*	*Annual Savings At 6%*
7	665	600	65	780
8	740	600	140	1,680
9	805	600	205	24,60
10	878	600	278	3,336

Shopping for an Adjustable Rate Mortgage

An adjustable rate mortgage (ARM) is a mortgage where the interest rate is not fixed but changes over the life of the loan. ARMs are often called variable or flexible rate mortgages.

ARMs often feature attractive starting interest rates and monthly payments. But you face the risk that your payments will rise. Pluses of ARMs include:

- You pay lower initial interest (often 2 or 3 percentage points below that of a fixed rate) and lower initial payments, which can result in considerable savings. This means that ARMs are easier to qualify for.
- Payments come down if interest rates fall.
- Loans are more readily available and their processing time is quicker than fixed-rate mortgages.
- Many adjustable loans are assumable by a borrower, which can help when it comes time to sell.
- Many ARMs allow you to prepay the loan without penalty.

Some of the pitfalls of ARMs include:

- Monthly payments can go up if interest rates rise.
- Negative amortization can occur meaning the monthly payments do not cover all of the interest cost. The interest cost that is not covered is added to the unpaid principal balance. This means after making many payments you could owe more than you did at the beginning of the loan balance.

- The initial interest rates last only until the first adjustment, typically six months or one year. And the promotional or tease rate is often not distinguished from the true contract rate, which is based on the index to which the loan is tied.

Tip: It pays to get an ARM if you are buying a starter home or expect to move or be transferred in two to three years.

You should consider a fixed rate loan over an ARM if you:

- Plan to be in the same home for a long time.
- Do not expect your income to rise.
- Plan to take sizable debts, like auto or educational loans.
- Prize the security of constant payments.

When you shop for an ARM (or for any other adjustable rate loan), you should carry the following checklist of questions to ask lenders:

- What is the initial loan rate and the annual percentage rate (APR)? What costs besides interest does the APR reflect? What are the points?
- What is the monthly payment?
- What index is the loan tied to? How has the index moved in the past? Will the rate always move with the index?
- What is the lender's margin above the index? Tip: The margin is an important consideration when comparing ARM loans, because it never changes during the life of the loan. *Remember*: Index rate + margin = ARM interest rate.
- How long will the initial rate be in effect? Will there be an automatic increase at the first adjustment period, even if the index has not changed? What effect will this have on monthly payments?
- How often can the rate change?
- Is there a limit on each rate change and how will the limit affect monthly payments?
- What is the "cap," or ceiling on the rate change over the life of the loan?
- Does the loan require private mortgage insurance (PMI) and how much does it cost per month?
- Is negative amortization possible?
- Is the loan assumable?
- Is there a prepayment penalty?

EXAMPLE 7

You are comparing ARMs offered by two different lenders. Both ARMs are for 30 years and amount to $65,000. Both lenders use the one-year Treasury index, which is 10%. But Lender A uses a 2% margin, and Lender B uses a 3% margin. Here is how the difference in margin would affect your initial monthly payment:

	Lender A	Lender B
ARM Interest Rate	12%(10%+2%)	13%(10%+3%)
Monthly Payment*	$668.60 @ 12%	$719.03 @ 13%

*from Table 5.

Note: there are different variations of arms you may opt for, such as 1-year (fixed) arm, 3-year arm, 5-year arm, 7-year arm, and 10-year arm.

Should You Pay Off Your Mortgage Early?

Suppose you have decided to refinance your home with a lower fixed rate mortgage. You should consider the term of the loan. Although the standard 30-year mortgage is still very much alive, you might want to consider a loan with a shorter term such as a 15-year fixed rate loan. The overall savings in interest paid to the lender over the life of the 15-year mortgage can be quite substantial, yet the monthly payment is not significantly higher. Recommendation: Even if you decide to stay with your current 30-year mortgage, you might be able to save a bundle by paying off more in each month, treating the 30-year loan as if it were a 15-year loan.

EXAMPLE 8

You currently have a $100,000 30-year fixed rate mortgage at 13 percent. Your monthly payment for principal and interest is $1,106.20. You have decided to refinance your home with a fixed-rate loan at 10 percent. You have two options available: 30-year loan at 10 percent vs. 15-year loan at the same rate. Look at Exhibit 6 to compare the monthly payment and total interest over the life of the loan. Note: In either case, the monthly payment is less than the 13 percent mortgage. Between 30-year and 15-year, however, the monthly payment increases about 22.45% while the savings in total interest payments over the life would be almost 57 percent. From this example, you learn some valuable lessons:

- It was a good decision to refinance your home, since, in either case, you save in your monthly payments ($1,106.20 vs. $877.57 (30-year) or $1,074.61 (15-year)). In this example, a 3 percent drop in the fixed rate made this possible.
- You would be able to save $122,495 in total interest payments by election of a 15-year loan without increasing your monthly burden.
- Among other things, you will be a 100 percent equity holder in your home within 15 years instead of 30 years.

Exhibit 6
Comparison of 30-year vs. 15-year Fixed Rate Mortgage

	30-Year	15-Year	$ Increase (Decrease)	% Increase (Decrease)
Principal	$100,000	$100,000	--	--
Rate	10%	10%	--	--
Monthly Payment	$877.57	$1,074.61	$197.04	22.45%
Total Interest	$215,925	$93,430	($122,495)	(56.73%)

Consider Bi-Weekly Mortgage Payments

If you pay the equivalent of an extra installment each year, you will dramatically lower the ultimate interest costs. This plan is called a biweekly payment plan. These plans provide a dramatic build-up of equity, saving you thousands of dollars in interest.

These plans do not change your existing mortgages. You are not reapplying or refinancing anything, so there are no points, no need for costly appraisals and no credit constraints. Instead of making one monthly payment, you make a half payment every 14 days. This results in 26 half payments yearly, or an extra monthly payment annually. This way you achieve the following:

- The reduction you will achieve on the loan more than doubles, even over the short term. For example, on a $100,000 loan, after three years in the biweekly program you would have $7,023 in equity available, as opposed to $3,425.61 if you had stayed on your regular monthly plan.
- The loan is also shortened if you keep your property for the full term of the loan. A typical 30-year loan is completely paid off in little more than 20 years, with a savings of more than $65,000 in interest per every $100,000 borrowed.

Biweekly payment plans are offered by various firms that are hired to act as money managers to assist the owner. Once in the program, everything is automatic. Every 14 days an electronic wire transfer of half your monthly payment is sent from your local bank or savings account. Then, after the second monthly half-payment, the funds are combined and the entire payment is transferred to your lender.

When shopping for a biweekly, there are five things to look for:

- A reasonable, one-time start-up fee
- Reasonable wire transfer fees
- The program holds your funds in a major bank, not in a trust account or other privately controlled account
- The program pays you interest on all funds held
- You have the ability to go off, and back on, the program or transfer at no additional charge.

Getting the Most for Your House

Getting top dollar for your house when you sell hinges upon a number of factors. They are:

- Ask the right price. Get several brokers to look at your house.
- Have them do comparisons ("comps") to other homes on their computer.
- Sell by July. Statistics show that of all home sales, over 70% occur in just four months, April through July. Most buyers want to move before school starts for their children.
- Put some cosmetics on your house.
- Pick a top sales agent. See if you can find a Realtor of the Year type because he or she is a performing broker.
- Don't be stingy on the standard commission. A full-price broker may give up some portion of the commission to clinch your sale.
- Sign up for a shorter term listing (like no more than 90 days).
- Take advantage of a multiple listing. The multiple listing is a listing, usually an exclusive right to sell, taken by a member of an organization made up of real estate brokers, with the provisions that all members will have the opportunity to find a buyer; a form of cooperative listing.
- Do not oversell. Sit back and let the broker do the talking.
- Avoid any offer that is contingent on the buyer's selling his or her own house. Avoid any chance the deal may fall through.

Should You Sell Your Home Yourself?

Where houses are selling briskly "For Sale by Owner" deals are becoming popular. Although this may not necessarily be a good idea in order to do away with the broker's commission, here are some tips:

- Advertise. Don't rely 100% on a "For Sale" sign on the lawn. You should circulate flyers, run ads in the local newspapers, utilize Internet advertising services such as www.craigslist.org or www.zillow.com , and put notices on bulletin boards. Try to be creative in advertising. Highlight good points (such as an assumable mortgage and a low fixed interest rate).
- Do not overprice. Compare your house to others in the neighborhood that have recently been sold, and factor in any improvements. Figure part of your savings in brokerage commissions into the asking price.
- Screen buyers. Before accepting an offer, ask the buyer to fill out a financial statement. You do not want the deal to fall through because of the buyer's failure to qualify for a mortgage loan. Ask how much of a down payment can be made. A serious buyer would not resist.

Conclusion

In this chapter, various issues surrounding homeownership have been addressed. Questions that may come up at various stages of homeownership involving purchase, refinancing, maintaining, and sale of your home have been covered. Exhibit 7 summarizes the types of mortgage loans.

The purchase of a home is your largest single investment. Homeownership is an "American Dream." But are you really prepared to be a homeowner? Purchasing a home is a serious matter. Even after purchase, many considerations have to be taken into account. When your home goes up in value (i.e., your equity is building up) or a mortgage rate goes down, you might want to consider refinancing. Does it pay? You might want to sell your home and move to better quarters. This chapter has discussed various ways to get the most for your home, and has presented the advantages of "sale by owner."

Helpful Websites

Here are some helpful Web sites that will assist homeowners interested in refinancing their mortgages and other matters:

Mortgage Information

www.RealEstateABC.com
Lists the 100 most visited real estate Web sites. It also provides general information in its real estate and payment calculators.

www.eloan.com
A large online-only mortgage bank. It hopes that homebuyers will choose to apply for and close a loan online.

www.lendingtree.com
Submit your information and within 24 hours you will receive bids from four lenders interested in making your loan.

www.bankrate.com
Rates for mortgages, credit cards, car loans and home equity loans, articles and tips on refinancing, online loan shopping.

www.consumerworld.org
Links to more mortgage, credit and financial Web sites than you'll know what to do with.

www.getsmart.com
Search mortgage companies, credit card rates.

www.homepath.com
Financial calculators, refinancing, first-time buyers.

www.hsh.com
Clearinghouse for loan rates by region, rates for borrowers with poor credit, tracking ARM indexes, calculators.

www.loanpage.com
Rates, reference materials, calculators and a mortgage chat room.

www.mbaa.org
Frequently asked questions, definition of terms and info about escrows.

www.relibrary.com
Answers questions concerning buying a home.

Community Information

www.homefair.com
From weather reports to cost-of-living comparisons to SAT scores, this site posts a range of helpful information, relocation tools, and links to local services. To obtain more detailed reports, you have to reveal your address and phone number, which means you may become prey to telemarketers.

Home Listings

www.homegain.com
Use HomeGain to find a top local real estate agent, get the value of your home, find homes for sale, get a mortgage, and more! It's FREE, with no obligation.

www.realtor.com
This real estate powerhouse lists 1.3 million properties, plus maps, photos, and community facts. About 90 percent of all homes listed nationally for sale. It also lets visitors check out various locales, the age and income range of residents, and the proximity to schools and cultural attractions.

www.redfin.com
Large real estate like realtor.com.

Home valuation

Sites are popping up on the Web to help people put a price tag on their home. Here is a look at three sites.

www.Zillow.com
It provides a free estimate of a home. All a person has to do is enter an address and out pops a value, as well as recent sales of surrounding homes.

www.Homesmartreports.com
For a fee, you can get a concise report on a property's value, recent sales, and a risk analysis of which properties will lose value.

Exhibit 7

Types of mortgage loans

Loan Type	**Benefits**	**Drawbacks**
1.Fixed-rate, fixed payment a. Conventional 30-year mortgage	Fixed Monthly Payments for 30 years provide certainty of principal interest payments.	Higher Initial rates than adjustable loans.
b. conventional 15 or 20 year mortgage.	Lower rate than 30-year fixed; faster equity buildup and quicker payoff of loan.	Higher monthly payments.
c. FHA.VA fixed rate mortgages (30-year and 15-year)	Low down payment requirements and fully assumable with no prepayment penalties.	May require substantial points; may have application red tape and delays.
d. “Balloon” loans (3-10 year terms)	May carry discount rates and other favorable terms, particularly when the home seller provides the loan.	At the end of the 3-10 year term, the entire remaining balance is due in a lump-sum or “balloon” payment, forcing the borrower to find new financing.
e. 40-year mortgage	A 40-year mortgage offers lower monthly payments than a 30-year loan.	By extending the length of the mortgage, the borrower increases the amount of interest paid over the life of the loan.
2.Adjustable rate a. Adjustable rate mortgage (ARM) – payment changes on 1-year, 3-year, and 5-year schedules.	Lower initial rates than fixed rates than fixed-rate loans, particularly on the one-year adjustable. Generally assumable by new buyers. Offers possibility of future rate and payment decreases. Loans with rate “caps” may protect borrowers against increases in rates. Some may be convertible to fixed-rate plans.	Shifts far greater interest rate risk onto borrows than fixed-rate loans. Without “caps,” may also sharply push up monthly payments in future years.
b. Graduated-payment mortgage (GPM) – payment increases by pre-arranged increments during first 5 to 7 years, then levels off.	Allows buyers with marginal incomes to qualify. Higher incomes over next 5-7 years expected to cover gradual payment increases. May be combined with adjustable-rate mortgage to further lower initial rate and payment.	May have higher annual percentage rate (APR) than standard fixed-rate or adjustable-rate loans. May involve negative amortization-increasing debt owed by borrower.
Growing-equity mortgage (GEM)-contributes rising portions of monthly payments to payoff of	Lower up-front payments, quicker loan payoff than conventional fixed-rate or adjustable-rate loans.	May have higher effective rates and higher down payments than other loans in the marketplace. Tax

principle debt. Typically pays off in 15-18 years rather than 30.	deductions for interest payments decrease over time.

Chapter 10 Review Questions

1. Home ownership advantages do NOT include:

   A. Building up equity
   B. Interest and property taxes are deductible
   C. Owning is less costly than renting
   D. Less living space

2. ______________ is NOT an example of homeowner expenses:

   A. Rent control expenses
   B. Mortgage payments
   C. Maintenance expenses
   D. Operating expenses (utilities)

3. One of the rules to determine a borrower’s housing affordability is 45% of taxable income. True or False?

Chapter 10 Review Questions

1. Home ownership advantages do NOT include:

A. **Incorrect.** With home ownership you are building equity due to the appreciation in the value of the home.
B. Incorrect. With home ownership interest and property taxes are deductible on the tax return.
C. Incorrect. For many, owning is less costly than renting because mortgage interest and property taxes are deductible
D. **Correct.** Homeownership has the following advantages: You are building equity due to the appreciation in the value of the home; Interest and property taxes are deductible on the tax return; usually owning is less costly than renting; you may enjoy extra living space and privacy.

2. ______________ is NOT an example of homeowner expenses:

A. **Correct.** Rent control expenses are associated with renting. Homeowner expenses can include mortgage payments, maintenance expenses, and operating expenses (utilities).
B. Incorrect. Mortgage payments are major home expenses.
C. Incorrect. Homeowners spend a lot on repairs, improvements, and upkeep.
D. Incorrect. Operating expenses such as utilities are homeownership expenses.

3. One of the rules to determine a borrower's housing affordability is 45% of taxable income. True or False?

True is incorrect. The rules to determine a borrower's housing affordability include: 35% of monthly take home pay; the price should not exceed 2 ½ times your family's annual gross income; monthly payments should not exceed 25% to 28% of gross income

False is correct. The 45% of taxable income is not an established rule.

Chapter 11:

Life, Health, Property, and Liability Insurance

Learning Objectives

After reading this chapter you will be able to:

- Identify the types of risk that need to be protected.
- Identify and evaluate a variety of life insurance policies and organizations.
- Differentiate medical and health insurance coverage attributes.
- Understand different policy attributes for property insurance.

An integral part of any financial plan is insurance protection. Insurance provides a vital means of meeting your financial objectives. Insurance is a method of spreading losses that arise from risks to which many persons are subject. The type and amount of insurance depends on your age, assets, income, and needs. Insurance is basically "replacement": life insurance provides income lost at the death of the wage earner; disability insurance assures income when you are not able to work full time; health insurance covers medical bills; and property/casualty policies pay most of the costs of theft, fire, or accident.

An insurance contract (a policy) must satisfy the usual requirements: offer and acceptance, consideration, legality, and capacity of the parties. An insurance contract is very similar to any other contract. However, an additional requirement is that the insured must have an insurable interest. With the variety of insurance products on the market, you are faced with a number of decisions.

Insurance

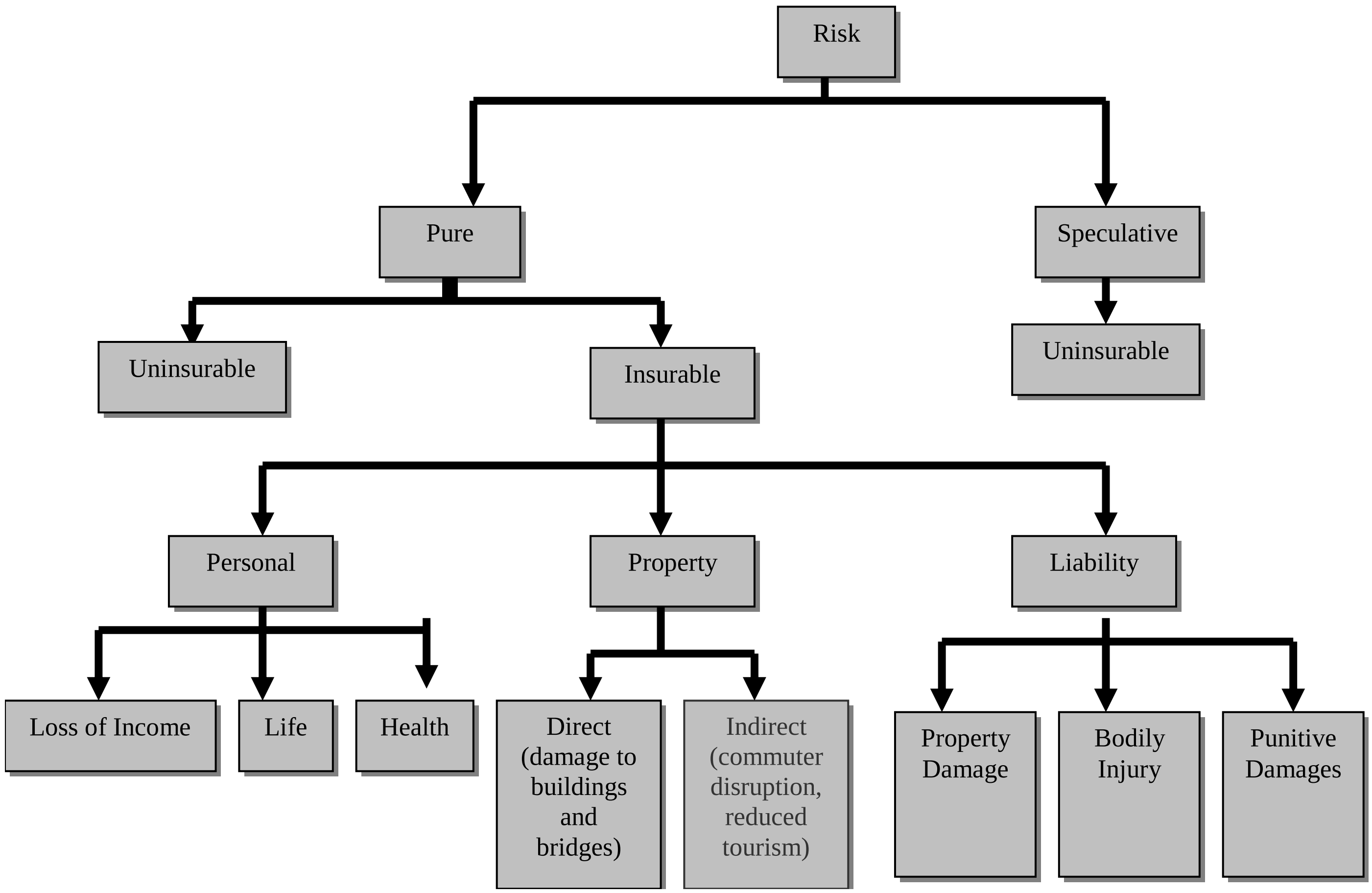
Types of risk

The most common risks are classified as personal risks, property risks, and liability risks.

- *Personal risks* -- the uncertainties surrounding loss of income or life due to premature death, illness, disability, old age, or unemployment.
- *Property risks*-- the uncertainties of direct or indirect losses to personal or real property due to fire, windstorms, accidents, theft, and other hazards.
- *Liability risks* --possible losses due to negligence resulting in bodily harm or property damage to others. Such harm or damage could be caused by an automobile, professional misconduct, injury suffered on one's property, and so on.

Personal risks, property risks, and liability risks are types of pure risk (see Exhibit 1), or insurable risk, since there would only be a chance of loss if the specified events occurred. Pure risks are accidental and unintentional risks for which the nature and financial cost of the loss can be predicted. A speculative risk is a risk in which there is a chance of either loss or gain. Starting a small business that may or may not succeed is an example of speculative risk. So is gambling. Speculative risks are legally defined as uninsurable.

Exhibit 1
Types of Insurance Available for Certain Risks



Life Insurance

Life insurance is the most important tool of estate planning and one of the most valuable aids to financial planning. The main purpose of life insurance is to provide cash to your family after you die. The money your dependents will receive (the "death benefit") is an important financial resource: It can help pay the mortgage, run the household, and ensure that your dependents aren't burdened with debt. The proceeds from a life insurance policy could mean that they won't have to sell assets to pay outstanding bills or taxes. What's more, there is no federal income tax on life insurance benefits.

There are two basic types of life insurance policies--term insurance and permanent insurance. All other kinds of policies are variations on one or more of the two basic types.

1. Term insurance.

Term insurance is death protection for a specified period of time and provides no cash value or savings element. It pays a benefit only if the insured dies during the period covered by the policy. It provides for a level premium rate for the set period after which the policy ceases and becomes void, except when renewed or changed to some other form of policy. It is the cheapest form of life insurance because it provides the most coverage for the least money. It is appropriate for young people who need large amounts of insurance, those who desire only death protection, and those whose insurance need will decrease over time. The premium rates increase at each renewal date. Many policies require that you present evidence of insurability at renewal to qualify for the lower rates.

Term insurance has many variations. Level term insurance premiums stay the same over the life of the policy, but these premiums are higher than with the straight term in early years and lower in later years. With decreasing term, the amount of coverage decreases each year while the premium stays the same. A convertible term policy can be converted to a whole life policy without a medical examination.

Aspects of Term Insurance

- Protection for a specified period of time
- Low initial premium
- May be renewable and/or convertible
- Premium rises with each new term
- You or your dependents get nothing back if you survive the term.

The term rates increase as the insured ages. Many people, in fact, discontinue needed coverage because of the increasing cost. When evaluating term policies, compare (1) initial premiums as well as those charged in later years and (2) renewal provisions.

2. Whole Life Insurance

Also called cash value, straight, permanent, universal, adjustable, variable, or ordinary life insurance, provides insurance protection by the payment of a fixed premium throughout the lifetime of the insured. However, in addition to death protection, whole life insurance has a savings element called “cash value” or “cash surrender value." As the policies mature, they develop cash values representing the early surplus plus investment earnings.

This feature, not found in most term insurance policies, provides you with some options.

- You can cancel or "surrender" the policy -- in total or in part -- and receive the cash value as a lump sum. If you surrender your policy in the early years, there may be little or no cash value.
- If you need to stop paying premiums, you can use the cash value to continue your current insurance protection for a specified time or to provide a lesser amount of protection covering you for your lifetime.

- You can usually borrow from the insurance company, using the cash value in your life insurance as collateral. Unlike loans from most financial institutions, the loan is not dependent on credit checks or other restrictions. You ultimately must repay any loan with interest or your beneficiaries will receive a reduced death benefit

The most common type of permanent insurance is whole life or ordinary life. The premiums generally remain constant over the life of the policy and must be paid periodically in the amount indicated in the policy.

Advantages of Whole-Life Insurance

- Future uninsurability, old age, or other contingencies cannot terminate the policy.
- When you are older and no longer need a large face amount of insurance protection you can cash in the policy and use the cash as a source of retirement income.
- Interest earned on cash value is tax-deferred until you surrender the policy, or tax free if you hold it for life.

Disadvantages of Whole-Life Insurance

- More death protection can be purchased with term insurance.
- The interest rate on cash value is generally below prevailing market rates. Therefore, high yields can be obtained on other investment or savings plans.
- Cash values grow slowly in early years because of large up-front commissions and start-up expenses.

Aspects of Whole-Life Insurance

- Protection for life
- Fixed premium
- Growing cash value
- Higher initial premium than term
- You or your dependents always receive benefits
- Available in several different forms such as universal, variable, or single-premium life.
- Should be purchased with the intention of keeping for life or for a long period of time.

Whole-life policies are most appropriate for those who want lifetime coverage and desire a structured savings plan.

There are many variations of whole life insurance: universal life, variable life, and single-premium whole life.

- *Universal life*. Universal life is a combination of term insurance and a tax-deferred savings plan that pays a flexible interest, either indexed to a particular investment such as the 90-day

Treasury bill, or formulated by the company. The guaranteed minimum rate typically is 4 or 5 percent. Tip: It is most appropriate for those who desire flexibility and wish to vary premiums to reflect changing life situations and needs.

- *Variable life*. Variable life offers lifetime protection with level premiums. The cash value is invested, at your choosing, in any combination of stocks, bonds or money-market funds.
- The investment risk is yours. There is no guaranteed minimum rate. The death benefit can grow if the cash value increases. Tip: It is best suited for those who are investment oriented, desire high yields on policy premiums and are willing to accept investment risk.

Single-premium life is explained later.

Note: Insurance experts say you should make sure you can buy enough coverage before you consider a cash-value policy. You can get quotes for term policies at several Web sites, including www.insure.com or www.insweb.com.

Note: When one person insures the life of another, the policyholder must have an insurable interest in the insured. That interest is found among persons who have a close family relationship or expect to suffer substantial economic loss from the death. Business entities are thus permitted to insure key people in their organizations whose death might have an adverse effect on profits.

Note: The typical life insurance policy contains a provision for a grace period for premium payment. If a premium is not received by the due date, the policyholder has a grace period under state law, usually a month or 31 days, in which to pay. After the grace period, the cash surrender value is not forfeited but can be withdrawn or used to buy a paid-up policy.

How Much Insurance is Enough?

Unfortunately, there is no fixed formula in assessing the amount of life insurance a family should have. There are basically two approaches to use in determining the amount of insurance you need. They are:

1. The *multiple-of-income approach*. Under this method, you simply multiply your gross annual income by some selected number. The American Council of Life Insurance (ACLI) suggests that life insurance should equal 5 to 7 times your annual gross income. This rule of thumb, however, may not always be appropriate because no two families are exactly the same. The amount will vary with family needs, goals, net worth, future expenses and income, and life style requirements. Note: You can find worksheets and articles at www.latimes.com/money and calculators at www.insure.com.
2. The *needs approach*. This approach determines the financial needs of your family and other dependents in the event of your death. The needs approach emphasizes meeting financial objectives and obligations while the human life value approach stresses replacement of your future earnings. The idea is to first add up the total financial needs and then to deduct accumulated assets. If you decide to use the needs approach, consider the following funds:
    a. Emergency and administrative fund--funds for the costs of final illness, funeral and burial bills, probate costs, uninsured medical costs, debts and estate taxes.

b. Special fund--fund needed for other specific needs, such as educational expenses and paying mortgages.
c. Retirement fund--additional money set aside to support your spouse and dependents.
d. Family income fund--fund to support surviving dependents until they are self-supporting.

EXAMPLE 1

Exhibit 1 illustrates the use of the needs approach to help estimate the amount of life insurance to buy.

	Sample Entries
(1) Funding needs	
1. Emergency and Administrative Fund	$ 15,000
2. Special Fund	125,000
3. Family Income Fund	80,000
4. Retirement Fund	60,000
Total Needs	$ 280,000
(2) Available Resources	
1. Savings	$ 30,000
2. Investments	60,000
3. Life Insurance	
a. Group Insurance	50,000
b. Social Security	1,000
Total Resources	$ 141,000
Life Insurance Gap	$ 139,000

Keep in mind that life insurance is not a static product. Family needs may change; family income might vary; family size may alter. Therefore, basic insurance needs can vary over time. It is wise to reassess your coverage periodically in keeping with the changes that occur in your life.

How to Evaluate Whole-Life Policies?

When shopping for whole-life insurance policies, here are some tips for evaluation:

- Load charges
- Investment return
- Death benefits and net annual premium amounts
- Guaranteed cash-value growth
- Insurance costs. What is the charge for the term coverage?
- Policy loan rates, in case you borrow money against the cash value.

- Cost-index numbers. The smaller the number, the lower the policy's net cost.
- Cash surrender values and charges, if any.
- How projected annual dividends, if any, would offset premium payments.
- Medical requirements, for increasing the policy's face amount.

What Type of Life Insurance Should You Buy?

When you buy life insurance from your agent, the chances are you will be steered to some form of whole life policy, since commissions are higher for that type. Here are some basic tips:

1. If you want the most protection, buy term insurance. Term premiums can be very expensive in your later years, but by then you may have enough protection for your dependents through your pension, social security and other sources of income. Hopefully, you should be able to drop or reduce your insurance.

   Recommendation: Keep your options open by buying a term policy that is convertible as well as renewable.

2. If you want a guaranteed right to continue the face amount until death and an assured level premium, and if you have a bad record of investment performance, you would be better off with a whole life policy. If you decide on a whole-life policy, consider a relatively new insurance product, single-premium whole life (SPWL).

EXAMPLE 2

You are 25 years old and are considering two insurance policies:

Type of insurance	Insurance protection	Annual premium	Cash value at age 65
Term to 65	$50,000	$150*	0
Whole life	$50,000	$450	$28,500

*Premium remains constant to age 65.

If you keep each policy until age 65, your total premium for each is:

Type of insurance	Annual premium	Period of policy	Total payments
Term to 65	$150	40 years	$6,000
Whole life	$450	40 years	$18,000

The rate of return you would have to earn on the premium savings (whole life term minus term to 65) from the term policy to match the whole life policy can be calculated as follows:

Note that:

- Annual premium savings: $450 - $150 = $300
- Investment period: 40 years
- Terminal value: $28,500

We set up the equation as follows:

- $300 x Table 2 (future of an annuity of $1) factor = $28,500,
- Table 2 factor = $28,500/$300 = 95

Based on Table 2, annual deposits of $300 for 40 years would have to earn 4 percent return for the fund to be worth $28,500.

Choosing an insurance company and agent

After you have thought about your financial needs and become familiar with the basic types of life insurance, it's time to choose a company and agent.

Where do I purchase life insurance?

Thousands of companies in the United States sell life insurance. While some consumers prefer to buy policies directly from a company, most people buy life insurance through agents or brokers.

How do I choose a company?

Before purchasing a policy, check the company's financial condition. Ask an agent or request information from your state's insurance department. Contact the insurance department to be sure the company is licensed in your state. You can also check the financial health of a company by looking at its "rating." A number of services rate the financial strength of companies, and publications that list these ratings usually can be found in large public or business libraries.

How do I choose an agent?

Collect the names of several agents through recommendations from friends, family and other sources. Find out:

1. Is the agent licensed in your state? All states require agents to be licensed to sell life insurance. In addition, agents who sell variable products must be registered with the National Association of Securities Dealers and have additional state licenses.
2. What company or companies do the agent represent? Ask the agent which company he or she represents and what types of policies these companies sell.
3. Does the agent have any professional designations? Professional designations that life insurance agents may earn include Chartered Life Underwriter (CLU) and Life Underwriter Training Council Fellow (LUTCF). Agents who are also financial planners may have other designations, such as Chartered Financial Consultant (ChFC), Certified Financial Planner (CFP), or Member of The Registry of Financial Planning Practitioners.

4. Is the agent a member of a professional organization? The major association for agents is the National Association of Life Underwriters (NALU). NALU's local associations provide educational seminars and help update agents on trends. Similar training and services for financial planners are available through the American Society of CLU & ChFC, Institute of Certified Financial Planners (ICFP), and International Association for Financial Planning (IAFP).

What is Single Premium Whole Life (SPWL) Insurance?

Single premium whole life insurance is a policy with a low risk investment flavor. For a minimum amount of $5,000, paid once, you get a paid-up insurance policy. Your money is invested at a guaranteed rate of interest, for one year or longer. SPWL has the following features:

- Its cash value earns interest immediately at competitive rates
- It allows you to borrow interest earned annually after first year
- It allows you to take out a loan for up to 90 percent of principal at lower rates
- It allows you to receive permanent life insurance coverage
- Withdrawals and loans are not subject to tax
- It provides tax-deferred accumulation of cash values
- It provides tax-free death benefits to named beneficiaries

Minuses of SPWL include:

- There are usually surrender charges if you withdraw your money.
- Interest rate generally guaranteed for only one year and could drop.

If you consider SPWL, get answers to the following questions:

- What is the "net interest" rate at which your cash value will grow? The net interest rate is the yield after subtracting costs of the insurance and administrative expenses.
- What is the surrender charge?
- Are there any loan-processing fees? What is the loan interest rate?
- Is there a bailout plan, which enables you to cash in the policy without penalty if interest rates drop below the initial rate?

Select only a company with an A or A+ rating by A.M. Best Company (Best's Insurance Reports available from a broker, company or library) that has been in business at least five to ten years. Note that rate comparison can be very confusing and difficult because of the existence of many variations.

Try to deal with a most consistent and reputable agent instead of shopping around for better rates. You might want to use various services offered by SelectQuote Insurance Services (140 Second Street, San Francisco, CA 94105, [(800) 343-1985] www.selectquote.com) . It is an insurance brokerage agency that (1) provides rate comparisons, (2) searches the rates of 1,600 companies to find the 16 that have a reputation for low rates on the type of coverage you want and have maintained an A or A+ rating from

A.M. Best, and (3) sells one of the policies via its toll free number. Note: Also, check Websites such as www.bestquote.com and www.masterquote.com.

The following presents A.M. Best' ratings.

Ratings	Description
A+	Superior, Negligible risk
A+c A, Ac A-	Excellent. Small, slightly variable risk
A-c B+ B+c	Good. High claims-paying ability for now
B Bc- B-	Adequate. But less protection against risk
B-c C+ C+c	Below average quality, higher risk factor
C Cc C-	Financially weak, high risk factor
CCC CC, D	Nonviable, or about to be

Reviewing Life Insurance Coverage

Your life insurance coverage requires periodic reevaluation as needs change and new insurance products present new possibilities. When reviewing coverage, ask yourself the following questions:

- Will the death benefit meet your dependents' lifestyle, support, debt and education needs?
- Have your dependents' needs exceeded or diminished the current death benefit of your coverage? You may have to increase your coverage if you have incurred additional debt or if there is a need to provide liquidity to your estate and the estate grows. Or you may want to decrease your coverage, if you fund your children's education expenses or if your spouse returns to work.
- Are the policy beneficiaries appropriate given your family and personal situation. Divorce, death, or disability may change the beneficiaries and their needs.

- If you have cash value insurance, what is the current cash value? Have you considered using policy loan provisions to borrow against the cash value? How would a loan reduce the death benefits? Will this reduction have adverse effects on your beneficiaries?

Cost Comparisons in Life Insurance

The price people pay for life insurance depends on their age, health, and life styles. Comparing life insurance prices is a difficult task since policies and plans vary from company to company. Two popular methods of cost comparisons are described below.

The Net Cost Method. This method is publicized by insurance agents for cash value life insurance. The net cost of a life insurance policy is the total of all premiums to be paid minus any accumulated cash value and accrued dividends. This is computed for a specified point in time during the life of the policy. If the net cost is negative, it means that the policy will pay for itself.

EXAMPLE 3

You are considering the purchase of a $100,000 cash value policy. Your annual premiums will be $1,664. The policy will have a cash value at the end of twenty years of $25,008. Total dividends accumulated for the twenty years will be $9,300. The net cost of the policy after twenty years is:

Net cost = ($1,664 x 20) - $25,008 - $9,300 = -$1,028

Interest-adjusted Cost Index. This is a measure of the cost of life insurance that takes into account the interest that would have been earned had the premiums been invested rather than used to buy insurance. This index should be made available by insurance agents. If the agent is not willing to supply the value for this index, you should not buy the policy. Generally, the lower the index, the lower the cost for a given dollar amount of insurance protection. Certainly, the policies with a positive index should be avoided.

EXAMPLE 4

In Example 3, the interest rate used is 5% and total dividends adjusted for 5% amount to $12,719. Then the 20-year, interest-adjusted cost index is calculated, step by step, as follows:

Step 1: Accumulate annual premium at 5% deposited at the beginning of each year for 20 years:

$1,664 x 34.719* (Table 3) = $57,772.42

Step 2: Accumulate total dividends at 5% compounded annually to end of 20th year and subtract $12,719 from the figure above:

$57,772.42 - $12,719 = $45,053.42

Step 3: Subtract cash value at end of 20th year:

$45,053.42 - $25,008.00 = $20,045.42

Step 4: Divide by 34.719, which is what $1 deposited at the beginning of each year in a 5% compounded account will grow to in 20 years. The result is the amount that would have to be saved to reach the sum derived in Step 3:

$20,045.42 / 34.719 = $577.36

Step 5: Divide the number of thousands of policy's face amount, in this case, 100, to compute the annual interest- adjusted cost per $1,000 of face amount. $5.77

You may use this figure to compare similar cash value policies from other agents and companies.

*Note that the value 34.719 here is the Table 3 value for 21 years at 5% less 1 year (35.719 - 1). The reason for using the value is that the deposit is made at the beginning of the year, not the end of the year.

Note: Websites such as www.AccuQuote.com allow you to compare the price, features, and financial strength of over 1,600 life insurance products.

Evaluating Disability or Loss-of-Income Insurance

This insurance provides regular cash income when an insured person is unable to work as a result of a covered illness, injury, or disease. Most disability payments are tax-exempt as long as the individual policyholder pays the premium. In evaluating your disability coverage, consider the following:

- Whether it is sufficient to meet the financial objectives and needs of you and your dependents should you become disabled.
- How disability is defined. Are benefits available if you can no longer perform any job or only a job for which you are qualified for your training, education or experience? If the definition is too restrictive, the financial burden of your disability may increase. If the definition is too broad, the cost of such insurance coverage may be substantial. Some policies exclude disabilities resulting from pregnancy, foreign travel, aviation, etc.
- The waiting (elimination) period. How long must you wait before benefits begin? Can you afford to wait that long?
- Cost-of-living adjustments. You should include a cost-of-living clause in your policy.
- Make sure the policy cannot be cancelled or raised arbitrarily.
- Look for any discount. For example, a premium discount may be available if you are a non-smoker.
- Make sure the policy has a residual clause for partial disabilities. A residual clause allows for some reduced level of benefits when income is reduced but not eliminated.

It is important to estimate how much disability insurance you need. Exhibit 2 can be used for that purpose. Rule of thumb: An adequate disability plan should provide at least 60 percent of your current gross income. (This figure is based on the assumption that some of your disability benefits will be tax free). If you own a business or practice, you may need higher coverage to provide cash flow to cover business overhead.

Like other insurance, your disability coverage must be reviewed regularly to ensure that it reflects your current financial needs and conditions.

Exhibit 2
How Much Disability Insurance

(1). Income replacement requirements	$ 10,000
(70% of your monthly gross income)	7,000
(2). Existing disability benefits and income during disability	
a. Social Security benefits	1,000
b. Company plans	500
c. Group disability policy benefits	
d. Other benefits	750
e. Spouse's monthly income	1,800
f. Other income	900
Total	4,950
(3). Additional monthly disability benefits needed (1) - (2)	$ 2,050

Reviewing Medical and Health Insurance Coverage

For most people, health insurance is provided by the employer as a major fringe benefit. Otherwise, individual policies can be purchased. Policies can include any or all of the following coverage:

- Hospitalization - covers hospital room and board, medications, tests, and services.
- Surgical - covers operations.
- Medical - covers visits to the doctor's office and diagnostic laboratory tests.
- Major medical - covers expenses that exceed the dollar limit of the basic coverage.
- Comprehensive - includes all of the above.
- Dental - covers most dental expenses.
- Vision care – covers vision and eye health problems.
- Prescriptions - pays for prescribed medication.
- Long-term care (LTC) – provides day-in, day-out care for long-term illness or disability.

Here are some tips for buying medical and health insurance:

- Shop carefully before you buy. Policies vary widely as to coverage, cost and service.
- Check for preexisting condition exclusions. Many policies exclude coverage for preexisting conditions.
- Review your coverage to determine what additional insurance you need to provide adequate protection for hospital, surgical and medical expenses. In evaluating coverage, make sure your deductible matches your ability to bear the cost of injury or illness.
- Consider ceilings on benefits provided by your policy. What are they and on what basis will they be applied--per illness, per plan year or per lifetime? Your out-of-pocket cost may vary significantly depending on how each applies to you.
- Determine the type of deductible your policy has--per person, per illness, per calendar year, or per group of participants.

Coinsurance and copayment. Co-insurance is a method of sharing risk between the insurer and the insured. A co-insurance clause typically provides that, if the policyholder insures his/her property for at least a stated percentage (usually 80%) of its actual cash value, any loss will be paid in full up to the face amount of the policy. If the insured has not carried the specified percentage and a partial loss occurs, the insurance company is liable for only a proportionate part of the loss. A coinsurance clause does not limit recovery when the insured property is a total loss.

Thus, a co-insurance clause is used by many property and casualty insurers to encourage policyholders to insure commercial property for an amount that is near to its full replacement cost. Under no circumstances would the insurance company pay more than the face value of the policy.

A variation of coinsurance, a copayment clause, requires you to pay a specific dollar portion of specific covered expense items (e.g., prescription drug coverage). The following formula will determine the loss that will be reimbursed when there is a deductible and a coinsurance clause:

Reimbursement = (1 - coinsurance percentage)(loss - deductible)

EXAMPLE 5

You bought a health insurance with a $100 deductible per hospital stay and a 20 percent coinsurance requirement. If the hospital bill is $2,225, The reimbursement will be: (1 - .20)($2,225 - $100) = .80($2,125) = $1,700

Check for a grace period. The grace period in health insurance is commonly thirty-one days. This prevents the lapse of a policy if a payment is late.

Managed Care Plans

Increasing health care costs have spurred the growth of managed care. Managed care refers to prepaid health plans that provide comprehensive health care to members. Managed care is offered by health maintenance organizations, preferred provider organizations, exclusive provider organizations, point-of-service plans, and traditional indemnity insurance companies.

Health Maintenance Organizations (HMOs)

Prepaid managed care is designed to make the provision of health care services cost effective by controlling their use. *Health maintenance organizations* (HMOs) are an alternative to basic and major medical insurance plans. A HMO is a health insurance plan that directly employs or contracts with selected physicians, surgeons, dentists, and optometrists to provide health care services in exchange for a fixed, prepaid monthly premium. HMOs operate on the premise that maintaining health through preventive care will minimize future medical problems.

The preventive care HMOs includes periodic checkups, screening programs, diagnostic testing, and immunizations. HMOs also provide a comprehensive range of other health care services. These services are divided into two categories: basic and supplemental. *Basic health services* include inpatient, outpatient, maternity, mental health, substance abuse, and emergency care. *Supplemental services* include vision, hearing, and pharmaceutical care and are usually available for an additional fee. Your membership in a typical HMO should cover office visits, routine checkups, hospital and surgical care, eye exams, laboratory and X-ray services, hemodialysis for kidney failure, and mental health services.

Preferred Provider Organizations (PPOs)

A preferred provider organization (PPO) is a group of doctors and hospitals that agree to provide health care at rates approved by the insurer. In return, PPOs expect prompt payment and the opportunity to serve an increased volume of patients. The premiums for PPOs are slightly higher than those for HMOs. An insurance company or your employer contracts with a PPO to provide specified services at predetermined fees to PPO members.

Preferred provider organizations combine the best elements of the fee-for-service and HMO systems. PPOs offer the services of doctors and hospitals at discount rates or give breaks in copayments and deductibles. PPOs provide their members with essentially the same benefits HMOs offer. However, while HMOs require members to seek care from HMO providers only (except for emergency treatment), PPOs allow members to use a preferred provider— or another provider—each time a medical need arises. This combination of allowing free choice of physicians and low-cost-care makes PPOs popular.

The *exclusive provider organization* (EPO) is the extreme of the PPO. Services rendered by nonaffiliated providers are not reimbursed. Therefore, if you belong to an EPO, you must receive your care from affiliated providers or pay the entire cost yourself. Providers are typically reimbursed on a fee-for-service basis according to a negotiated discount or fee schedule.

Point-of-service plans (POSs), sometimes called HMO-PPO hybrids or open-ended HMOs, combine characteristics of both HMOs and PPOs. POSs use a network of selected contracted, participating providers. Employees select a primary care physician who controls referrals for medical specialists. If you receive care from a plan provider, you pay little or nothing, as in an HMO, and do not file claims. Medical care provided by out-of-plan providers will be reimbursed, but you must pay significantly higher copayments and deductibles.

The distinction among HMOs, PPOs, EPOs, and POSs is becoming fuzzy. As cost reduction pressures mount and these alternative delivery systems try to increase their market share, each tries to make its system more attractive. The evolution of health care plans will likely continue so that it will become increasingly difficult to characterize a particular managed care delivery system as adhering to any particular model.

Note: There are numerous websites that help you shop for health insurance. For example, www.eHealthInsurance.com help you find and buy the health plan that is right for you. You can learn all about health insurance, get online instant health insurance quotes, and compare health plan prices and benefits side-by-side.

Shopping for Long-Term Care Coverage

Finally, the long-term care insurance industry is starting to get organized. It's getting easier to find products that are somewhat standardized and to find agents who understand those products. Here are some shopping tips:

- Find a credible expert to help you. The best agents are those who handle only long-term care coverage and carry products from several different companies.
- Address the commission question head-on. Long-term care insurance is mostly sold by agents who are compensated by the companies that issue the policies. Ask the agent whether one policy pays him more than another. If that's the case, ask whether there's another policy that's equally good, but less expensive. At least one agency, LTC Financial Partners (www.ltcfp.com) has started equalizing their commissions. To find fee-only advisers who handle long-term care policies, contact the National Association of Personal Financial Advisors (www.napfa.com).
- Double-check the recommendations you get. Weiss Ratings (www.weissratings.com) publishes a consumer guide to long-term care insurance that includes policy recommendations and also safety ratings on all of the companies that sell it. You can also check with local nursing homes and eldercare case workers.
- Get a policy that includes home health care. Parents who may not want to think about ending up in a nursing home might like the idea that they are insuring their ability to afford skilled care in their own homes if they need it.
- Limit your benefits so you can afford the policy. The majority of people who end up in nursing homes don't stay there for years and years. Capping benefits at 6 years could limit the premiums to a level you could afford.

- Consider your own health profile and family health history. Some experts say you should buy a long-term care insurance policy as soon as you turn 50; every year that you wait after that increases the likelihood that you would develop a condition that could render you uninsurable. And premiums are smaller when you are younger.
- Consider reducing your premiums by buying a policy with a higher deductible, if you can afford the out-of-pocket expense, and with three to five years of coverage, rather than lifetime benefits. (Studies show that most people do not stay in nursing homes for more than several years.) Married couples should ask about discounts.
- Don't skimp on inflation protection. Ask for a policy whose benefits will rise 5 percent a year, compounded.
- Check with your employer. More than 5,000 employers offer long-term care insurance, according to the American Association of Health Plans. The group coverage probably will have a lower premium than an individual policy.

Property, Liability and Casualty Insurance

Property, liability and casualty insurance are important to your financial security. You can be successful in your job, investments and the like, and yet be almost destroyed financially by an accident, disaster, or lawsuit for which you do not have adequate property, liability, and casualty insurance. It is wise to carry such insurance to protect family assets and future income from a catastrophic event. Note: Auto insurance and homeowners' insurance policies contain liability coverages that provide a base level of protection.

Hazard insurance is insurance protecting a property owner against damages caused by fires or severe storms. If you live in an area that is prone to natural disasters, like earthquakes and floods, you may need a separate policy. It is the most standardized kind of insurance. Following the lead of New York, almost all states have enacted a standard policy either by legislative or administrative action. Hazardous insurance generally protects the insured from damage to the insured property as a result of fires or severe storms. It does not cover the insured for causing a fire on someone else's property. A hazardous insurance policy does not indemnify for losses arising from friendly fires. A friendly fire is one that burns where it is intended to burn, such as a fireplace or furnace. Note: Arson, fraud, or another intentional act of the insured calculated to cause the damage insured against will preclude recovery. The parties to an insurance contract have an implied duty not to bring about the very event that is the subject matter of the policy.

In today's litigious society, you might want to buy additional liability insurance in the form of an umbrella policy. It provides supplemental coverage that picks up where the liability protection in auto, homeowners' and other policies leave off. Compare terms, exclusions, and prices of policies.

How Good is Your Homeowners Policy?

Not all homeowners policies offer equal protection. When a loss occurs, it is painfully easy to find out too late that a small extra premium could have saved you a large sum of money. You also may be missing out on discounts that have come along in recent years. The time to find out is before something happens. Here are some tips:

1. Determine your insurance needs. The best figure to use is your home's replacement value (i.e., the amount it would cost to rebuild, excluding land). Your minimum protection should be 80% of the cost to replace your house. If you fail to meet the replacement cost requirement, the amount of reimbursement for any loss will be calculated using the formula:

$$R = [I/(RV \times 80\%] \times L$$

where R=reimbursement payable or recovery, L=the amount of loss less deductible, I=amount of insurance actually carried, RV=replacement value

EXAMPLE 6

You have a home with a replacement value of $100,000 and suffer a $50,000 fire loss. Your policy contained an 80% coinsurance clause.

The amount of insurance reimbursement is:

(Amount of insurance / Coinsurance requirement) x Loss = Recovery

[$80,000/($100,000 x 80%)] $50,000 = $50,000. You are fully reimbursed for your entire fire loss of $50,000.

2. Know the basic policy from the broad policy. Look for the broadest coverage for the dollar. But for maximum peace of mind, choose the "all risk" form. Compare the cost of each form.
3. Find out if in case of loss of the contents of a room, you will be paid based on book value replacement cost. Do not be surprised when you file a claim only to learn that policies that promise "actual cash value" are actually referring to your original cost minus depreciation over years of use. The formula for determining the actual cash value (ACV) is

$$ACV = P - [CA \times (P/n) \quad]$$

where P=purchase price of the item, CA=current age in years, and n=expected life in years.

EXAMPLE 7

Your 6-year old video camera was stolen. The new camera costs $400 and has an expected life of 8 years. The actual cash value (ACV) at the time it was stolen is: $400 - [6 x ($400/8)]= $100

4. Make sure your policy includes an inflation endorsement that is tied to a state or regional index, instead of a national index to keep in line with current construction costs.
5. Make sure potential calamities are covered. Fire and storm damage will be included, but damage from ice and snow may not be.
6. Look into a floater policy for furs, jewelry, silver, personal computers--theft protection for such valuables may be limited.

7. Consider an umbrella liability policy. A lawsuit over an accident on your property or away from home could wipe you out. Note: Umbrella protection is written over an underlying homeowners' policy and an auto policy. It takes over when the liability limits on these policies are reached. For example, if your homeowners' policy covers liability up to $50,000, an umbrella policy can cover you from losses in excess of $50,000.
8. You can achieve substantial savings by accepting a higher deductible (e.g., $250 or $500 instead of $100).
9. Realize discounts by installing dead-bolt locks, smoke detectors, and fire extinguishers. See what other discounts are available, such as multiple insurance policies and loyalty discounts.
10. Keep pictures of your valuables and personal belongings. Note: video records and/or scanning would be a good idea.
11. Review your insurance at least once a year, to make sure your coverage is keeping pace with inflation.

When You Have To File A Claim...

- Report any theft or vandalism to the police.
- Immediately call your insurance agent.
- Protect your property from further damage.
- Save all receipts for reimbursements.
- Make a list of damaged articles.
- Review the settlement steps outlined in your policy. In case there is a significant difference between what the insurer offers and what you believe you are entitled to, submit the dispute to arbitration.

If you are unhappy with your experience with the insurance carrier (e.g., delay in receiving payment, inadequate reimbursement), "shop around" for another insurance company.

Types of Homeowner Policies

Seven different types of homeowner policies have been designed to meet needs of buyers. Each of them is briefly described below.

- *Homeowners- 1 (HO-1).* Known as the basic coverage, HO-1 offers protection against eleven of the eighteen major property-damage perils--for example, fire, windstorm, hail, vandalism, explosion, lightning, riot, and smoke. Losses from these perils may be limited in the amount of coverage. The policy provides protection from the three liability exposures-- comprehensive personal liability, damage to other peoples' property and medical payments.
- *Homeowners- 2 (HO-2)*. Known as the broad form, HO-2 offers a broader coverage than HO-1, in that HO-2 covers the eighteen major perils that cause property damages--for example, falling objects, collapse of buildings, freezing of plumbing, etc. It also provides protection from the three liability exposures.

- *Homeowners- 3 (HO-3).* Often known as the special form, HO-3 provides all-risk coverage on the dwelling itself. All-risk coverage on the dwelling means that if a loss is not excluded in HO-3, it is covered.
- *Renters (HO-4).* HO-4 is designed for people who are renting an apartment or a home. It insures renters' personal property on the same basis as HO-2.
- *HO-5 Comprehensive*. HO-5 is the most comprehensive coverage you can buy. Obviously, it is much more expensive than other forms.
- *HO-6 Condominium*. This is very similar to HO-4 except that it is designed for condominium renters, not owners.
- *HO-8.* HO-8 is designed for owners of older buildings that have been remodeled and would have replacement costs high in comparison with replacement costs for similar homes. This particular form differs from other policies in that the coverage is on an actual cash value basis rather than on a replacement cost basis.

Auto Insurance

The objective of automobile insurance is to protect you against two basic risks:

- Liability coverage for bodily injuries, property damages, and medical expenses to you and others when you are at fault. These coverage's usually have certain limits. For example, $250/$500 limit would pay $250,000 for loss from bodily injury liability for any one person, or $500,000 for all persons involved in any one accident. Property damage liability is usually expressed as a single limit, such as $100,000 or $200,000, for any one accident.
- Physical coverage for damage or loss of your car due to fire, theft, or collision.

Premiums for auto insurance vary from company to company, but all rates generally reflect your age, sex, marital status, driving record, location, frequency of use, and your car's age.

Here are some tips for buying auto insurance:

- Shop around for the lowest cost coverage. Auto policies vary as to cost, coverage, and claim service. Insurance companies usually set rates based on their own loss experience from the previous year or two. If one company has unusually high losses, its rates may go from cheap to expensive in short order. Many state insurance departments also offer insurance rate comparisons on their websites.
- Bundle your insurance policies. You can get some pretty nice discounts for having your home and auto insured with the same company. This is known as a multi-policy discount and can save anywhere from 10% to 20% on either your auto insurance, your home insurance or both.
- Save you money in premiums by using high deductibles. For example, doubling the collision deductible from $250 to $500 can lower the collision premium by 15 to 30%. Exhibit 3 can be helpful in comparing the cost.
- Look for discounts resulting from owning two cars or installation of alarm or safety systems. Also check out good students discounts—available to those maintaining at least a "B" average.

- Pay promptly. Credit scores are increasingly becoming a key component in how insurance companies set premium rates. You get a high credit score for paying bills on time, maintaining long-term credit relationships and a variety of other factors. Insurance scores are used by auto insurance and homeowners' insurance underwriters to determine the insurer's risk of losing money -- in other words, the risk that the claims you file in a given year will exceed your insurance premiums. Two types of insurance scores are provided by Fair Issac (www.myfico.com) and LexisNexis (https://personalreports.lexisnexis.com). Note: Where insurance scores can get confusing is the range they use. Fair Isaac's FICO scores run between 300 and 850, but its insurance scores range from 300 to 900. (The company doesn't release a breakdown of what is considered a "good" insurance score the way it does for its traditional FICO score.)
- Get married. Insurers consider married couples comparatively better risks.

Exhibit 3
Auto Insurance Comparison Worksheet

Company ________			
	Limits	Deductible	Annual Premium
Liability	________		________
Medical payments	________		________
Uninsured motorists	________		________
Collision	________		________
Comprehensive	________	________	________
Total cost			________
Discounts			
Name	Percentage Discount	Dollar Discount	
1. ________	________	________	
2. ________	________	________	
3. ________	________	________	
etc.	________	________	
Total dollar discounts			________
Total cost after discounts			________

Selecting Agents and Companies

It is important to select the right insurance agents and companies. However, you should know enough about what you are buying so that an agent can recommend the right insurance policy. The reason is that if you are unable to explain precisely what your insurance needs are, agents are unable to recommend and tailor for you the right combination of coverages. Usually, you have the following options:

- A direct-writing company, whose sales people are employees or exclusive agents.
- An independent agent or broker, who usually deals with the policies of several companies.

Here are some tips:

- Go to your local library or search the Internet. Check out the companies the agents represent, as well as the direct-writing companies you are considering.
- Deal only with the best companies, which are rated A or A+ by the Best's Insurance Reports.
- Get recommendations from friends, including business and professional people who have significant insurance needs.
- Engage in comparison shopping among agents being seriously considered. Ask for proposed solutions to your insurance problems. Compare them in terms of deductibles, exclusions, and prices.

Where to Get Insurance Answers?

If you have an unsettled claim or complaints about your insurance agent or company, the best place to call is your state insurance department. You will obtain impartial information and recommendations on what to do. In the case of an unsettled claim, the state insurance department cannot order payment but they can ask the insurance company to take a second look.

Websites for insurance companies and quotation

www.insure.com

www.ambest.com

www.moodys.com

www.weissratings.com

You can find ratings for insurance companies at the websites above.

www.iii.org
The mission of the Insurance Information Institute (III) is to improve public understanding of insurance -- what it does and how it works. It covers all types of insurance.

www.AccuQuote.com
Allows you to compare the price, features, and financial strength of over 1,600 life insurance products.

www.eHealthInsurance.com
Helps you find and buy the health plan that is right for you. You can learn all about health insurance, get

online instant health insurance quotes, compare health plan prices and health plan benefits side-by-side.

Chapter 11 Review Questions

1. Insurance may best be defined as

A. A system for transferring risk through risk avoidance or loss control.
B. Any contract that conveys an insurable interest.
C. A form of pure risk called gambling.
D. A means of combining many loss exposures so that losses are shared by all participants.

2. Which of the following is the best functional definition of insurance?

A. A legal contract by which the insurer, in return for consideration, agrees to pay another person if a stated loss or injury occurs.
B. A legal contract by which an insurance company, in return for premiums, agrees to pay the policyholder if a certain event occurs.
C. A written promise by the insurer to pay the beneficiary if loss occurs from the occurrence of a contingent event.
D. A writing issued by an insurance company, for a consideration, that promises to indemnify a beneficiary for a loss from an existing risk or one which arises later.

3. In which way does the formation of an insurance contract differ from any other contract?

A. The requirement that the insured must have an insurable interest.
B. The insurance contract is not valid unless written.
C. Consideration is not needed for the formation of an insurance contract.
D. In insurance, only the insured can commit a breach.

4. Life insurance

A. Provide cash to your family after you die.
B. Usually has short-term policies.
C. Covers only the mortality risk.
D. Generally has no cash value.

5. Life insurance is offered in several forms. The kind that offers no investment feature is

A. Whole life.

B. Endowment.
C. Straight life.
D. Term.

6. Jon Berstock is an employee of PR, Inc. During his employment, the corporation's earnings have doubled, largely because of Jon's ability to attract new accounts. PR therefore insured his life for a substantial sum. If Jon dies, will PR be able to collect the insurance proceeds?

A. Yes, because a corporation has an insurable interest in all its employees since it can act only through agents.
B. Yes, because PR has a pecuniary interest in Jon's continued life.
C. No, because PR will continue to exist after Jon's death.
D. No, because Jon was not a stockholder or officer of PR, Inc.

7. The typical life insurance policy contains

A. No exclusion for death during military service.
B. A clause allowing coverage for death during noncommercial flight.
C. A prohibition on reinstatement.
D. A provision for a grace period for premium payment.

8. The purpose of a co-insurance clause is to

A. Encourage policyholders to bear a proportionate part of any loss.
B. Encourage insurers to pay the face amount of the policy in the event of a partial loss on the part of the insured.
C. Encourage policyholders to insure commercial property for an amount that is near to its full replacement cost.
D. Encourage policyholders to insure commercial property for an amount that is significantly less than its full replacement cost.

9. Hart owned a building with a fair market value of $400,000. The building was covered by a $300,000 hazardous insurance policy containing an 80% coinsurance clause. What amount would Hart recover if a fire totally destroyed the building?

A. $0
B. $240,000
C. $300,000

D. $400,000

10. On April 2, 2012, Ritz Corp. purchased a warehouse that it insured for $500,000. The policy contained a 75% coinsurance clause. On April 25, 2012, a fire caused $900,000 damage to the warehouse. The fair market value of the warehouse was $800,000 on April 2, 2011 and $1 million on April 25, 2011 Ritz is entitled to receive insurance proceeds of, at most,

A. $375,000
B. $500,000
C. $600,000
D. $750,000

11. Mason Co. maintained two standard hazardous insurance policies on one of its warehouses. Both policies included an 80% coinsurance clause and a typical "other insurance" clause. One policy was with Ace Hazardous Insurance, Inc., for $24,000, and the other was with Thrifty Casualty Insurance Co., for $16,000. At a time when the warehouse was worth $100,000, a fire in the warehouse caused a $40,000 loss. What amounts can Mason recover from Ace and Thrifty, respectively?

A. $0 and $0.
B. $10,000 and $10,000.
C. $12,000 and $8,000.
D. $24,000 and $16,000.

12. Which of the following is a characteristic of hazardous insurance?

A. It is more standardized than life insurance.
B. It is written for a relatively short period but usually includes an incontestability clause.
C. A policy must be valued and contain a pro rata clause.
D. The insurable interest must be an ownership interest in the property itself.

13. A hazardous insurance policy ordinarily indemnifies for losses arising from friendly fires. True or False?

14. Which of the following wrongful acts prevents recovery under a policy of hazardous insurance?

A. Arson by the insured's employees or agents.
B. Arson by third persons unrelated to the insured.

C. An act by the insured intended to cause the damage.
D. Gross negligence but not amounting to recklessness and willful misconduct.

15. Which of the following is NOT a type of insurance policy that provides liability coverage?

A. Malpractice insurance.
B. Homeowners insurance.
C. Automobile insurance.
D. Hazardous insurance.

Chapter 11 Review Answers

1. Insurance may best be defined as

A. Incorrect**.** Risk avoidance and loss control do not transfer risk of loss.
B. Incorrect. An insurable interest is merely a potential for economic loss if an event occurs.
C. Incorrect. There must be an insurable interest, which is basically potential for loss if an event occurs. Gambling occurs when only a bet is at risk.
D. **Correct.** Insurance is a method of spreading losses that arise from risks to which many persons are subject. Loss is an unanticipated diminution in economic value as opposed to normal depreciation. Risk is uncertainty about the occurrence or the amount of loss. For example, buildings are subject to the risk of loss by fire. If the owners all pay small fees (premiums) for insurance coverage, every participant bears part of the loss instead of a few bearing all the loss.

2. Which of the following is the best functional definition of insurance?

A. **Correct.** An insurance contract (a policy) must satisfy the usual requirements: offer and acceptance, consideration, legality, and capacity of the parties. The insured must have an insurable interest in the subject matter of the contract. Also, the subject matter generally must exist at the time of contracting. In the contract, the insurer makes a promise to pay a stated amount for loss or injury incurred as a result of a contingent event.
B. Incorrect. The payee may be a stranger to the contract. A person who insures his/her own life names a third party as a beneficiary. Moreover, not every insurer is an insurance company, and the contingent event insured against must involve a risk.
C. Incorrect. There is no general requirement that an insurance contract be written.
D. Incorrect. The contract may often be oral, and, if the risk is not already in existence, the transaction is in essence a wager, not insurance.

3. In which way does the formation of an insurance contract differ from any other contract?

A. **Correct.** An insurance contract is very similar to any other contract. However, an additional requirement is that the insured must have an insurable interest.
B. Incorrect. There is no general requirement that an insurance contract be written. Oral binders are given every day in the insurance business.
C. Incorrect. Consideration is needed for the initial formation of an insurance contract. The premium may be paid immediately, or a promise to pay is required.
D. Incorrect. The insurance company can also commit a breach by refusing to pay the proceeds of the policy upon the occurrence of the event.

4. Life insurance:

A. **Correct.** Life insurance is the most important tool of estate planning and one of the most valuable aids to financial planning. The main purpose of life insurance is to provide cash to your family after you die.
B. Incorrect. Life insurance is customarily long-term, if not for life.
C. Incorrect. Unlike other forms of insurance, life insurance does not attempt to reimburse for the actual amount of a loss since loss of life is not measurable. Life insurance is intended to replace economic benefits lost by a person's death.
D. Incorrect. Except for term policies, life insurance differs from other kinds of coverage in providing cash value.

5. Life insurance is offered in several forms. The kind that offers no investment feature is

A. Incorrect**.** Whole life furnishes lifetime insurance protection with a cash surrender value.
B. Incorrect. An endowment policy provides life insurance protection for its duration. A cash payment is made (the policy endows) at the end of the term. Premiums for endowment policies are higher than for whole life insurance.
C. Incorrect. A straight life or ordinary policy is whole life insurance with level premiums payable for life.
D. **Correct.** Term life insurance provides protection for a specified period. Premiums are level throughout the period. When the term ends, the insured receives no payment. Term insurance may be renewable (possibly at higher premiums) or convertible to another form. It is the cheapest kind of life insurance.

6. Jon Berstock is an employee of PR, Inc. During his employment, the corporation's earnings have doubled, largely because of Jon's ability to attract new accounts. PR therefore insured his life for a substantial sum. If Jon dies, will PR be able to collect the insurance proceeds?

A. Incorrect. A corporation has an insurable interest only in its key employees, i.e., those whose death would cause loss to the firm.
B. **Correct.** When one person insures the life of another, the policyholder must have an insurable interest in the insured. That interest is found among persons who have a close family relationship or expect to suffer substantial economic loss from the death. Business entities are thus permitted to insure key people in their organizations whose death might have an adverse effect on profits.
C. Incorrect. The required loss need not be so great as to cause cessation of business.
D. Incorrect. One need not be an owner for an officer to be insurable as a key person.

7. The typical life insurance policy contains

A. Incorrect. Life insurance policies often do not cover death while the insured is in the military.
B. Incorrect. Life insurance policies often do not cover death as a result of a noncommercial air flight.
C. Incorrect. A lapsed policy may often be reinstated by payment of overdue premiums plus interest.
D. **Correct.** If a premium is not received by the due date, the policyholder has a grace period under state law, usually a month or 31 days, in which to pay. After the grace period, the cash surrender value is not forfeited but can be withdrawn or used to buy a paid-up policy.

8. The purpose of a co-insurance clause is to

A. Incorrect. If a policyholder does not insure the property for an amount close enough to its full replacement cost, the policyholder must bear a proportionate part of any partial loss.
B. Incorrect. The co-insurance requirement applies only to partial losses. Total losses result in recovery of the face amount of the policy.
C. **Correct.** Co-insurance is a method of sharing risk between the insurer and the insured. A co-insurance clause typically provides that, if the policyholder insures his/her property for at least a stated percentage (usually 80%) of its actual cash value, any loss will be paid in full up to the face amount of the policy. Thus, a co-insurance clause is used by many property and casualty insurers to encourage policyholders to insure commercial property for an amount that is near to its full replacement cost.
D. Incorrect. A co-insurance clause encourages policyholders to insure commercial property for an amount that is near to its full replacement cost.

9. Hart owned a building with a fair market value of $400,000. The building was covered by a $300,000 hazardous insurance policy containing an 80% coinsurance clause. What amount would Hart recover if a fire totally destroyed the building?

A. Incorrect. Partial recovery is available when a coinsurance requirement is not complied with.
B. Incorrect. A coinsurance clause does not limit recovery when the insured property is a total loss.
C. **Correct.** A coinsurance clause requires the insured to maintain insurance equal to or greater than a specified percentage (usually 80%) of the value of the insured property. If the insured has not carried the specified percentage and a partial loss occurs, the insurance company is liable for only a proportionate part of the loss. This is to deter people from paying for insurance on only a small part of the property's value. However, the coinsurance clause has no application

when an insured building is totally destroyed. Thus, Hart can recover the $300,000 face value of the policy.

D. Incorrect. An insured cannot collect more from an insurance company than the face value of the policy.

10. On April 2, 2012, Ritz Corp. purchased a warehouse that it insured for $500,000. The policy contained a 75% coinsurance clause. On April 25, 2012, a fire caused $900,000 damage to the warehouse. The fair market value of the warehouse was $800,000 on April 2, 2011 and $1 million on April 25, 2011 Ritz is entitled to receive insurance proceeds of, at most,

A. Incorrect. The coinsurance percentage is applied to compute the coinsurance requirement, which in turn is the denominator of the fraction multiplied by the loss.
B. **Correct.** Under a standard coinsurance clause, the insured agrees to maintain insurance equal to a specified percentage of the value of the property. If the insured has not carried the specified percentage and a loss occurs, the insurance company pays only part of the loss. The coinsurance requirement is $750,000 (75% x $1,000,000 FMV at the time of the loss). Under the formula below, Ritz might recover $600,000 of the $900,000 loss: (Amount of insurance) / (Coinsurance requirements) x Loss = Recovery; so $500,000 / $750,000 x $900,000 = $600,000. But Ritz may recover no more than the face amount of the policy.
C. Incorrect. Under no circumstances would the insurance company pay more than the face value ($500,000) of the policy.
D. Incorrect. The insurance company will not pay more than the $500,000 face value of the policy. The coinsurance requirement is $750,000 (75% x $1,000,000 FMV at the time of the loss).

11. Mason Co. maintained two standard hazardous insurance policies on one of its warehouses. Both policies included an 80% coinsurance clause and a typical "other insurance" clause. One policy was with Ace Hazardous Insurance, Inc., for $24,000, and the other was with Thrifty Casualty Insurance Co., for $16,000. At a time when the warehouse was worth $100,000, a fire in the warehouse caused a $40,000 loss. What amounts can Mason recover from Ace and Thrifty, respectively?

A. Incorrect. Part of the loss is recovered when a coinsurance clause is not complied with.
B. Incorrect. Each pays the amount recoverable times the percentage of the total insurance it agreed to provide.
C. **Correct.** Under a coinsurance clause, the insured agrees to maintain the insurance equal to a specified percentage of the value of his/her property. If a loss occurs, the insurer pays only a proportionate share if the insured has not carried the specified percentage. In this case, the insured agreed to carry 80%, but in fact carried only 40%; thus, it became a 50% insurer, and the insurance companies' liability was reduced to 50% of any loss. The total combined liability of the hazardous insurance companies in the problem is $20,000. Under the standard pro rata clause, a person who is insured with multiple policies can collect from each insurance company only a

proportionate amount of the loss. Even though Ace issued a policy for $24,000, it is liable for only three-fifths (24,000 ÷ 40,000) of the recoverable loss after applying the coinsurance formula [(3 ÷ 5) x $20,000 = $12,000]. Likewise, Thrifty is liable for 2 ÷ 5 of $20,000.

D. Incorrect. The insurer pays only a proportionate share if the insured has not carried the specified percentage.

12. Which of the following is a characteristic of hazardous insurance?

A. **Correct.** Hazardous insurance is the most standardized kind of insurance. Following the lead of New York, almost all states have enacted a standard policy either by legislative or administrative action.

B. Incorrect. Given that hazardous insurance is usually written for a 1- to 3-year period, an incontestability clause is not necessary. Such a clause bars insurer defenses after a period specified by law or the policy.

C. Incorrect. A policy may state a definite value of the insured property or simply a maximum amount of coverage that is not conclusive as to valuation when loss occurs. A policy may thus be valued or open (unvalued). A pro rata clause is often included (but not required) which requires the loss to be shared pro rata when there is more than one insurer.

D. Incorrect. The insurable interest merely requires the person, e.g., mortgagee, bailee, etc., to suffer a loss if the event insured against occurs.

13. A hazardous insurance policy ordinarily indemnifies for losses arising from friendly fires. True or False?

True is incorrect. Hazardous insurance usually indemnifies for loss caused by hostile, but not friendly, fires.

False is correct. Ordinarily, smoke, water, or other damage caused by hostile, but not friendly, fires will be indemnified under a hazardous insurance policy. Hostile fires are those ignited in places where they are not meant to be. A friendly fire is one that burns where it is intended to burn, such as a fireplace or furnace. For example, if a friendly fire is kept within its usual container, damage caused by smoke from it will not be reimbursed.

14. Which of the following wrongful acts prevents recovery under a policy of hazardous insurance?

A. Incorrect. Agency rules do not apply; i.e., the intentional act of an agent will not be imputed to the insured under the doctrine of respondeat superior (Latin: "let the master answer"); also called the "Master-Servant Rule". Arson by an agent without the actual knowledge or conspiracy of the insured will not preclude recovery.

B. Incorrect. Arson is compensable unless intended by the insured.
C. **Correct.** Arson, fraud, or another intentional act of the insured calculated to cause the damage insured against will preclude recovery. The parties to an insurance contract have an implied duty not to bring about the very event that is the subject matter of the policy.
D. Incorrect. Negligence without fraud will not prevent recovery by an insured who has acted in good faith.

15. Which of the following is NOT a type of insurance policy that provides liability coverage?

A. Incorrect. Malpractice insurance is a special form of liability insurance protecting professionals from lawsuits by third parties for negligence.
B. Incorrect. Homeowners insurance generally contains a liability section in the event guests are injured on the premises.
C. Incorrect. A primary purpose of automobile insurance is to protect the owner or driver from liability in the event (s)he is responsible for damage to another person or property.
D. **Correct.** Hazardous insurance generally protects the insured from damage to the insured property as a result of fire. It does not cover the insured for causing a fire on someone else's property.

Chapter 12:

Investments and Planning

Learning Objectives

After reading this chapter you will be able to:

- Identify investment strategies and sources of investment money.
- Differentiate aggressive and defensive investment strategies.
- Understand the different risk factors for investments.

This chapter distinguishes between financial assets and real assets, looks at short-term versus long-term investing, enumerates investment considerations and guidelines, presents marketable investments, discusses economic and market factors, evaluates inflation, and analyzes risk versus return.

Getting Started as an Investor

Before you invest any funds, you should evaluate your present financial condition. Consider your income, expenses, taxes, future prospects for higher earnings, and all other details that affect your monetary situation. Decide how much you want to invest. Realistically, it can be done only with money left over after paying expenses, having proper insurance, and making pension contributions.

Then very carefully formulate your investment goal or goals. Will you invest in order to earn a profit? As a hedge against economic fluctuations such as inflation. To build up a retirement income? Your next step should be to examine the investment choices presented in this column and then decide which kinds of investments are best for you.

You should attempt to formulate an investment strategy based on your goals and financial characteristics. Investment planning should be aimed at arriving at a good mix of risk and reward. You should take into account the types of investments available including their return potential and riskiness. Also, you should be aware of the general risks of investing including those related stock market price variability, inflation, and money market conditions.

Set your long-term goals first, thinking in terms of the middle and distant future. Then establish short-term financial objectives that are consistent with the long-term aims. After six months or a year, if you haven't been able to meet your short-term goals, you may have to reevaluate the long-term objectives. If, however, you have done much better than you expected to do, you may want to formulate more ambitious goals. Keep in mind that investing is an integral part of your overall financial planning.

Financial Assets and Real Assets

The two basic kinds of investments are financial assets and real assets. Financial assets comprise all intangible assets: They might represent equity ownership of a company, or provide evidence that someone owes you a debt, or show the right to buy or sell your ownership interest at a later date.

Financial assets include savings and money market accounts, money market certificates, Treasury bills, commercial paper, common stock, options and warrants, preferred stock, bonds, mutual funds, and derivatives including commodity futures and financial futures.

Real assets are those investments you can put your hands on. They are what we call real property. Real assets include real estate, precious metals, stones, gems, oil, and collectibles.

Short-Term and Long-Term Investments

An investment may be short-term or long-term. Short-term investments are held for 1 year or less, whereas long-term investments mature after more than 1 year. An example of a short-term investment is a 1 year-certificate of deposit; a typical long-term investment is a 10-year bond. (Some long-term investments have no maturity date.) Equity securities (common stock and preferred stock) are considered long-term investments. But you can purchase a long-term investment and treat it as a short-term investment by selling it within 1 year.

Fixed Dollar and Variable Dollar Investments

Fixed-dollar investments have principal and/or income guaranteed in advance. Examples are bonds, preferred stock, U.S. government securities, and municipal bonds. Variable-dollar investments do not have principal and/or income guaranteed. Examples are common stock and real estate.

Sources of Investment Money

There are several ways of financing your investment choices. They include:

- *Discretionary income*. After-tax income is disposable income, money available to you for spending or saving. You must commit much of your disposable income to fixed or semi-fixed expenditures such as housing, food, and transportation. Discretionary income is what is left after these expenses.

- *Home equity*. You may have a substantial amount of money in your home. You can cash out some of it by taking either a home equity loan or an equity line.
- *Life insurance*. If you have a cash value (for example, whole life or variable life) life insurance policy, you can borrow up to a certain amount.
- *Profit sharing and pension*. If you own some form of annuity, you may borrow up to a certain amount at a low interest rate.
- *Gift*.
- *OPM* (other people's money).

Some Investment Considerations

Your financial situation and future expectations are essential in formulating an investment strategy.

Before you decide to make a particular investment, you should consider the following as they apply to your particular situation: current and future income needs; need to provide for heirs; need to hedge against inflation; ability to withstand financial losses; security of principal and income; rate of return; liquidity and marketability; diversification; tax and estate status; long-term versus short-term potential; amount of investment; denomination of investment [for example, $5,000 minimum investment, as required by some real estate investment trusts (REITs)]; need for loan collateral; protection from creditor claims; callability provisions; and risk level (high risk/higher reward versus low risk/greater security).

Key Questions to Ask

You must always be open and inquisitive in personal financial planning. The answers you give for the following questions will significantly shape investment strategy:

- What proportion of funds do you want safe and liquid?
- Are you willing to invest for higher return but greater risk?
- How long a maturity period are you willing to take on the investment?
- What should be the mix of your investments for diversification purposes (for example, stocks, bonds, real estate)?
- Do you need to invest in tax-free securities?

You should invest during good and bad times because we can never be sure of the exact market timing. Such a strategy will typically provide rewarding returns. For example, in the recent financial crisis, there appear to be many good buys of significantly undervalued securities.

Aggressive and Defensive Investment Strategy

Aggressive investment policies attempt to maximize profits and take above-average risk. Defensive investment policies are designed to reduce risk but also provide less return. If you invest aggressively, you tend to buy and sell more frequently. In a defensive strategy, you "buy and hold." Aggressive investment may include buying securities on margin (credit)—margin trading— so as to increase profit potential. Defensive investment does not rely on leverage. Diversification is a defensive policy. Aggressive investing involves concentration by investing in a few securities at one time in anticipation of a high return.

Marketable and Liquid Investments

Marketability should be distinguished from liquidity. Marketability means you can find a ready market if you want to sell the investment. Liquidity means the investment is not only marketable and easily accessible but also has a highly stable price. Note: Capital markets are the markets for long-term debt (that with a maturity of more than year) and corporate stocks. The New York Stock Exchange, which handles the stocks of many large corporations, is a prime example of a capital market. The American Stock Exchange and the regional stock exchanges are other examples. In addition, securities are traded by thousands of brokers and dealers over-the-counter (OTC), a term used to denote all buying and selling activities in securities that do not occur in an organized stock exchange. In the capital market, a distinction is made between the primary market, where new issues of securities are traded, and the secondary market, where previously issued securities are traded. The primary market is a source of new securities for the secondary market.

Liquidity may be important if you have limited investments or are saving for a specific personal or business item (for example, down payment on a house). However, liquid investments typically earn less of a return than illiquid ones. You desire to minimize delays and transaction costs to convert the investment into immediate cash. Liquid investments include savings accounts, money market funds, and certificates of deposit.

Exhibit 1 depicts marketability and liquidity factors for an investment.

Exhibit 1
Asset Marketability and Liquidity

	Marketability	*Liquidity*
Savings accounts	Not applicable	High
Corporate bonds	High	Medium
Short-term U.S. Government securities	High	High
Long-term U.S. Government securities	High	Medium
Common stock	High	Low
Real estate	Medium	Low

Investment Objectives

If you want a safe investment with predictable but low return, invest in U.S. government securities (e.g., Treasury bills), bank accounts, or money market accounts of a mutual fund.

If you are retired, you may favor safe investments providing fixed yearly returns. Appreciation in the price of a security is not as important as stable, guaranteed income. Risky investments are undesirable due to uncertainty. For example, a retiree may be satisfied with a long-term government bond.

There is a risk/return trade-off in investing. Generally, the higher the return to be earned, the riskier is the investment. For example, a higher return is generally earned on investing in stocks than in Treasury bills because of the greater risk.

The more money you invest in one source, the higher the rate of return. For example, a bank will usually pay you a higher interest rate on a $100,000 investment compared to a $10,000 investment.

Be cautious in taking salespeople's (for example, brokers, mutual fund representatives) advice because their prime motivation is to earn a commission.

Different Scenarios

Your personal finance strategy will differ depending upon whether there is inflation or depression.

- **High Inflation**: A rapid increase in inflation will cause interest rates to rise, and bond prices to fall. Therefore, you should avoid fixed-income securities. However, the prices of precious metals (for example, gold and silver) and real estate will increase.
- **Depression**: In a depression, purchase long-term Treasury bonds. Interest rates will drop close to zero, and you will have a security all others wish to buy that is safe.

After you have an emergency fund and necessities, you may want capital accumulation. You will want an investment that grows consistently with your risk tolerance. In order to have growth, the after-tax return on the investment portfolio has to exceed the inflation rate. If inflation is high, your investment may not outpace inflation.

EXAMPLE 1

> You invest in a fixed-income portfolio (for example, bonds earning 9 percent). You are in the 28 percent tax bracket. Your after-tax yield is 6.48% (9% x .72). Assuming an inflation rate of 5 percent, you have only exceeded the inflation rate by 1.48% (6.48% - 5.00%).

You may borrow money to make investments. This is known as leverage. You can dramatically increase the yield on an investment otherwise made entirely from your own funds. This increase occurs when the return on the investment exceeds the cost of borrowing. You can maximize return by buying stocks on margin or by putting down as little as possible when buying real estate.

Income-oriented investments that provide continual cash flow include stocks paying high dividends (for example, utilities), bonds, income funds, certificates of deposit, and Treasury notes.

The Impact of Economic and Market Factors

General economic conditions may affect your investments. Generally, problems in the economy will have a negative impact on your investments. Equity securities, for example, are typically highly sensitive to the overall economy. For instance, during an economic downturn, companies may have difficulty repaying their debts (adversely affecting their bond ratings) and have difficulty selling their products (adversely affecting stock prices).

If interest rates change, differing types of securities will be affected in varying ways.

- Investments at risk with changing interest rates are notes, bonds, mortgages, GNMA ("Ginnie Maes," issued by the Government National Mortgage Association), and stocks.
- Investments offsetting the risk of interest rate changes are real estate and gold.
- Long-term interest rates on high-quality bonds are about 3 percent more than the expected long-term inflation rate.

With rising interest rates, stock prices decrease for the following reasons: Dividends are less attractive so many people sell stocks and put funds in the bank; buying stock on margin becomes more costly and thus discourages investment; financing becomes more costly for businesses resulting in decreased profits and inhibited expansion.

A change in economic conditions may have a material effect upon investments.

- Investments affected by a changing economy are bonds, stocks, mortgages, and real estate.
- Investments not vulnerable to a changing economy are U.S. government securities, gold, and certificates of deposit.
- Investments at risk during market cycle changes are common stock, real estate, collectibles, and gold.
- Investments which offset market cycle risk are bonds, certificates of deposit, GNMAs, mortgages, and notes.

Mutual Funds

A direct investment is when you buy a claim on a specific property. When you select an indirect investment, you invest in a portfolio of securities or properties. One popular indirect investment is a share of a mutual fund, which is a portfolio of securities issued by any one of several mutual investment companies. Mutual funds are discussed in more detail in a later chapter.

The Cost of Investing

You might want to take into account the expenses associated with various investment instruments. The expenses vary widely.

- Investments involving high expenses include over-the-counter and inactive stocks, load mutual funds, unit trusts, limited partnerships, collectibles, and certificates of deposit if withdrawn before maturity.
- Investments requiring low expenses include thinly traded stocks, bonds, index funds and no-load mutual funds.

Buy in volume to obtain discounts. For example, as you increase the number of shares purchased, the brokerage commission per share drops. The more you invest in certain mutual funds (for example, Fidelity Special Situations), the lower the sales commission will be. The greater the dollar purchase of a Treasury bill, the less the commission.

Inflation

You have to take inflation into account in making personal financial planning decisions. Inflation is an increase in price for goods and services over a short time period. It reduces the purchasing power of the dollar and increases the cost of living. For example, inflation can push up the price of housing so severely that many young adults cannot afford to buy a house.

Determining the Appropriate Level of Risk

Personal risk means you may not be able to accomplish financial goals. Conservatism in financial planning is recommended, so that there is an aversion to high risk. Risk includes the chance of losing money on an investment. The more an investment can vary in value during the maturity period, the greater the risk you take when you buy it. Questions to be answered regarding losses include:

- What potential losses exist, and what is the probability of loss?
- How much money will be needed in the event of a major loss?
- How much loss can be withstood, and for how long?

Risk can be reduced by having a diversified portfolio of securities that is negatively correlated (the prices of the securities move in opposite directions). Perfect negative correlation is -1. An example of negatively correlated securities would be Ford Motor Company and Amtrak. The portfolio may also consist of securities having no correlation (0) such as pharmaceuticals and airlines. Avoid securities that are positively correlated because their prices always move in the same direction. Therefore, greater risk exists. Perfect positive correlation is +1. Examples of positively correlated securities are automobile, steel, and tire stocks. Note that correlation may be between -1 and +1.

Conclusion

Your investment strategy will depend on your particular situation, including consideration of age, health, financial condition, tax rate, liquidity needs, and risk tolerance. You also have to take into account economic and market factors in formulating an investment program.

Websites for investing fundamentals

www.fool.com

Go the “Fool’s School” to find the “13 steps to Investing Foolishly.”

www.riskgrades.com

Are your investments too risky? Too conservative? Not sure? The site provides a method for rating the risks of various investments.

Chapter 12 Review Questions

1. Treasury bills are most often held as a substitute for cash. True or False?

2. The term “margin trading” is the

A. Buying of a security by paying the margin requirement and borrowing the remaining amount form the seller.
B. Selling of securities to repay a loan from a broker.
C. Borrowing of the margin requirement to buy securities.
D. Selling of a security that is not owned by the seller and making a marginal profit.

3. The market for outstanding, listed common stock is called the

A. Primary market.
B. Foreign exchange market.
C. Secondary market.
D. Over-the-counter market.

4. Stock markets that are organized exchanges differ from over-the-counter (OTC) markets in that

A. Organized exchanges have specifically designated members, whereas OTC markets have a few dealers who make a market in securities.
B. OTC markets are tangible physical entities, whereas organized exchanges are intangible organizations.
C. Organized exchanges facilitate communication between buyers and sellers of securities, whereas OTC markets do not facilitate communication between buyers and sellers.
D. Organized exchanges conduct trading in unlisted securities, whereas OTC markets do not conduct trading in unlisted securities.

5. Investments requiring low expenses include actively traded stocks. True or False?

Chapter 12 Review Answers

1. Treasury bills are most often held as a substitute for cash. True or False?

> **True is correct**. A Treasury bill is a short-term U.S. government obligation that is sold at a discount from its face value. A Treasury bill is highly liquid and nearly risk-free, and it is often held as a substitute for cash.
>
> False is incorrect. Most other investment vehicles such as gold, common stock, and corporate bonds lack the liquidity necessary to be a cash substitute. They can also be quite risk investments.

2. The term "margin trading" is the

A. **Correct.** Margin trading is accomplished by buying securities on credit extended from the seller. The purchaser pays the margin requirement that is set by the Federal Reserve and borrows the remaining money from the seller. The seller holds the security as collateral.
B. Incorrect. Margin trading involves the buying of securities by paying the margin requirement of the price and borrowing the remaining amount.
C. Incorrect. The purchaser must pay the margin requirement to buy securities.
D. Incorrect. Margin trading involves the buying of securities by paying the margin requirement of the price and borrowing the remaining amount.

3. The market for outstanding, listed common stock is called the

A. Incorrect. The primary market is the place where firms raise capital by issuing new securities. The initial public offering (IPO) market is a frequently used term for the market in which previously privately owned firms issue new securities to the public.
B. Incorrect. The foreign exchange market is the market in which foreign currencies are traded.
C. **Correct.** Previously issued (outstanding) shares of publicly owned companies are traded among investors in the secondary market. The original issuer receives no additional capital as a result of such trades.
D. Incorrect. The over-the-counter market is the network of dealers that provides for trading in unlisted securities.

4. Stock markets that are organized exchanges differ from over-the-counter (OTC) markets in that

A. **Correct.** On organized exchanges, designated members hold seats that are bought for large amounts. OTC markets have a few dealers that hold inventories of OTC securities and make a market in them, and numerous brokers who act as agents in bringing these dealers together with investors.
B. Incorrect. Organized exchanges are tangible physical entities.
C. Incorrect. Both types of markets facilitate communication between buyers and sellers of securities.
D. Incorrect. OTC markets conduct trading in unlisted securities. Organized exchanges list securities.

5. Investments requiring low expenses include actively traded stocks. True or False?

True is incorrect. Investments requiring low expenses include thinly traded stocks, bonds, index funds, and no-load mutual funds.

False is correct. Actively traded stocks incur high expenses due to their frequent turnover.

Chapter 13:

Investing in Common Stock

Learning Objectives

After reading this chapter you will be able to:

- Identify the types of common stock.
- Understand stock valuation methods using some practical approaches.
- Recognize market-risk and diversification strategy.

Common Stock

Common stock is an equity investment that represents ownership in a business (evidenced by a stock certificate that is transferable). For example, if you hold 3,000 shares of XYZ Company, which has 100,000 shares outstanding, your ownership interest is 3 percent. Shares means a fractional ownership interest in a firm. You obtain an equity interest in the company by buying its stock. Before the stock may be sold to the public, it must be registered with the Securities and Exchange Commission. Details of a new issue and financial information are contained in a document referred to as the prospectus. Law requires that you receive a prospectus before you can purchase a security.

As a stockholder, you can vote for the directors of the corporation. There is no maturity date to an equity investment. Your return is in the form of dividend income and appreciation in the market price of stock.

Stocks are of two types: common and preferred. As a common stockholder, you bear part of the company's risk and share in its success. Preferred stock is similar to bonds, which are discussed in Chapter 4. You may buy common stock on the listed exchanges or the over-the-counter market. Exhibit 1 presents characteristics of common stock.

Exhibit 1
Characteristics of Common Stock

Voting rights	*One Vote Per Share*
Income	Dividends; not fixed
Capital gain/loss potential	Yes
Price stability	No
Inflation hedge	Yes
Preemptive right*	Yes
Priority of claim	Residual after all other claims paid
Unit of purchase	Usually in units of 100 shares

* Preemptive rights protect common shareholders' proportional ownership interests from dilution in value. A secondary purpose is to maintain the shareholders' control of the company. Accordingly, the preemptive right, whether granted by statute or by the corporate charter, grants common shareholders the power to acquire on a pro rata basis any additional common shares sold by the firm. Preemptive rights also apply to debt convertible into common shares.

You should be familiar with the following common stock terms.

Par Value. The stated or face value of a stock. This figure exists primarily for legal reasons. Some stocks are issued with no par value.

Book value. This equals the common stockholders' equity divided by the number of shares outstanding.

Market price. The current price at the stock can be bought or sold at. Market prices are listed in the newspapers (for example, The Wall Street Journal).

The Advantages and Disadvantages of Owning Common Stock

Among the benefits of owning common stock are:

- Voting right
- Share in dividends and increased market price
- Better hedge against inflation than with fixed-income securities
- Preemptive right to maintain your proportionate share of ownership in the company -- that is, to buy new shares issued before they go on sale to the public

Assume you own 5 percent of the company and there is a new issuance of 50,000 shares. You have the right to purchase 2,500 shares.

On the other hand, there are some disadvantages to common stock ownership including:

- Possible decline in market price
- Possible curtailment or elimination of dividends
- Receipt of dividends only after preferred stockholders
- Possible forfeiture of dividends omitted in a year
- Greater price fluctuation than with fixed-income securities

Although equity ownership returns vary with business cycles, stocks have shown over the years to be rewarding investments and good hedges against inflation. However, you should invest in stocks only if you have extra disposable income after building up sufficient cash savings for unexpected emergencies, life insurance, and other necessities. If possible, try to invest about 15 percent of after-tax income. As a general rule, before you invest in stocks, your total assets should be two times your total liabilities.

What Types of Stocks Are There?

The stock you buy should be best for your particular circumstances and goals. The types of stock include:

1. Blue chips. These offer ownership in high-quality, financially strong companies (for example, General Electric). They have low risk and provide modest but dependable returns. They have good track records in earnings growth and dividend payments. "Blue chips" are less susceptible than other stocks to cyclical market swings. They typically sell at high price-earnings (P/E) ratios and have low risk of stock price variability. A "blue chip" is for those wanting a safe, long-term equity investment.
2. Growth stocks. Companies evidencing faster growth rates than other firms (for example, high-technology businesses) and the economy in general. Growth stocks pay low or no dividends, since earnings are normally retained for future expansion. While growth stocks usually increase in price faster than others, they may fluctuate more. A growth stock may be good if you are planning to retire many years from now.
3. Income stocks. These are issued by companies having higher dividends and dividend payout ratios. These stocks are good if you desire high current income instead of capital appreciation, and want to have less risk. Income stocks are generally of companies in stable industries (for example, utilities). Income stocks give you stable income streams to satisfy your present living requirements. Tip: You may be interested in income stocks when greater uncertainty exists about economic conditions. Income stocks are attractive to retirees who depend on stability and periodic cash flow.
4. Cyclical stocks. When a stock's price fluctuates based on economic changes, it is called a cyclical stock. These companies' earnings drop in recession and increase in expansion. The stocks are thus somewhat speculative. Examples are airlines, chemicals, and construction companies. A cyclical stock may be for a young individual who is willing to take risks and who is financially secure.
5. Defensive stocks. Stocks of companies that are basically not affected by a downturn in the business cycle. They are consistent and safe securities. However, a lower return is earned.

Examples are utilities and consumer product companies. A defensive stock may be for an older person who prefers to avoid downward risk in the economy.

6. Speculative stocks. When companies without established track records issue stock, there is uncertainty in earnings but an opportunity for large profits. You may buy a speculative stock if you want a very high return and are willing to take high risk. Speculative stocks are for professional investors rather than the average person. Speculative stocks have high price-earnings ratios and price fluctuations. Examples are biotechnology companies and mining stocks.
7. Mid-caps and small caps. In the stock market, a stock's size is based on its market value—or, more commonly, on what is known as its market capitalization or market cap. A stock's market cap is found by multiplying its market price by the number of shares outstanding. Generally speaking, the market can be broken into three major components, or segments, as measured by a stock's market "cap":
   a. Small Cap: Stocks with market caps of less than $750 million
   b. Mid-Cap: Market caps of $750 million to $3—$4 billion
   c. Large Cap: Market caps of more than $3—$4 billion

In addition to these three segments, another one is reserved for the really small stocks, known as micro-caps. Many of these stocks have market caps well below $100 million (some as low as $10—$15 million), and should only be used by investors who fully understand the risks involved and can tolerate such risk exposure.

Beware of "penny" stocks, which typically sell for less than $1 a share. Penny stocks are issued by companies with a short or erratic history of earnings, and are thus quite risky.

A part of your funds should be invested in equity securities for diversification. But do not put all your eggs in one basket; if all your funds are in stock, you may suffer a huge loss in a stock crash.

However, over the long run, stocks have outperformed most other investments including bonds, certificates of deposit, and gold.

Brokers and Orders

The broker's commission is based on the dollar amount of the transaction and the number of shares traded. The greater the number of shares and the greater the dollar amount, the lower is the commission percentage.

The types of orders you may place for stock transactions are as follows:

- *Market Order*. You buy or sell stock at the current market price.
- *Open order*. Your order is kept open for a specified time period.
- *Day order*. Your order is good only for the day.
- *Good till canceled* (GTC). There is no expiration date to the order. It is open until the transaction takes place or is withdrawn.

- *Limit order*. You agree to buy the stock at no more than a given price or sell at no less than a stated price. Your broker continues the order until a specified date or until you withdraw it. The brokerage commission is usually higher on a limit order than on a market order. A limit order may be good to use when market prices are uncertain or fluctuate rapidly.
- Stop-loss order. You agree to sell a stock when it declines below a given price. Recommendation: Set a stop-loss order at 15 to 20 percent below your cost or the recent high. Stop-loss orders are not available for over-the-counter stocks. Use this order to protect yourself from further stock price declines by selling the shares at a predetermined price.
- Time order. You ask your broker to sell a stock at a particular price in a given time period (for example, month, week, day) unless you cancel the order.
- Scale order. You give an order to purchase or sell a stock in specified amounts at specified price variations.

Example 1

You place a limit order to buy at $9 or less a stock now selling at $10. If the stock increases, it is not bought. However, if it decreases to $9, it is immediately purchased.

Example 2

You own 100 shares of ABC Company at a current market price of $40 per share. You originally bought it at $25 a share. You may place a stop-loss order to sell the stock if it drops to $35, to lock in a gain of $10 ($35 - $25).

Example 3

You wish to sell 50 shares of XYZ Company at $40 per share. You believe the stock will rise to $40 in 2 weeks. You can place a time order to sell the shares at $40, specifying a limit of 2 weeks.

A settlement for a stock transaction takes place on the third full business day after a trade has occurred. For example, if you buy shares you must pay for them by the fifth business day (settlement date) after the date of purchase (trade date).

An odd-lot transaction is one involving less than 100 shares of a stock. A round-lot transaction involves units of 100 shares. Tip: If you buy fewer than 100 shares you may have to pay more per share for the stock. Further, the brokerage commission per share may come out higher, because of the restricted volume.

Discount and Online Brokers

The investment industry has changed radically over the last 30 years. Investors who simply want to execute trades and are not interested in obtaining the full array of brokerage services offered by so-called full-service brokers should consider either a discount broker or online broker. Discount brokers tend to have low overhead operations and offer fewer customer services than full-service brokers.

Those with the very lowest commissions and who offer hardly any of the normal broker services, other than executing trades, are called deep discounters. Many discount brokers, however, do provide research and other services. Transactions are initiated by placing the desired buy or sell order or calling a toll-free number. The brokerage firm then executes the order at the best possible price and confirms the details of the transaction by email or mail. Most discounters charge a minimum transaction fee ranging between $8 and $20. Depending on the size of the transaction, discount brokers can save investors significant amounts vs. the commissions charged by full-service brokers. As a result, most individual investors today use low-cost online brokers.

With the technology that's available to almost anyone today, it's not surprising that investors can more easily trade securities online than on the phone. All you need to do is sign-up with an online broker and execute trades electronically online. The investor merely accesses the online broker's web site to open an account, review the commission schedule, or see a demonstration of the available transactional services and procedures. Many online brokers now offer sophisticated tools and research, and confirmation of electronic trades is virtually instantaneous. The rapidly growing volume of business done by discount and online brokers attests to their success.

Stock Splits and Stock Dividends

A company may issue additional shares through a stock split and/or stock dividend. A stock split is the issuance of a substantial amount of additional shares, thus reducing the par value of the stock on a proportionate basis. For example, a two-for-one split means for every one share you previously had, you now have two shares but the par value per share is halved so the total par value is the same.

A stock dividend is a pro rata distribution of added shares of a company's stock to stockholders. For example, a 10 percent stock dividend means that for every 1 share you own you receive 0.10 shares. Thus, for instance, if you owned 100 shares, you will have after the stock dividend 110 shares.

Stock Splits

A stock split occurs when a company believes its stock price is too high and wants to lower the per share price to generate trading appeal. Should you get excited about a stock split? No. All that has happened is that you have received more shares: the total cost and value remain the same. Thus, the cost per share has decreased proportionately. While a stock split may positively affect the stock price temporarily, because of psychological factors and because it's now cheaper for others to buy because of the lower price, it does not change the underlying value of the stock.

After a stock split, your ownership percentage of the company is still the same. The market price of the stock theoretically should decrease on a relative basis for the split.

EXAMPLE 4

You own 1,000 shares of Company XYZ at a cost of $10,000. If a two-for-one stock split occurs, you will receive two new shares for each old share. The cost per share will be halved. Theoretically, the market price per share should also be halved. After Company XYZ's stock split you will have 2,000 shares at a cost per share of $5 - still $10,000 in total.

Dividends

The two common types of dividends are cash and stock. On average, U.S. companies pay out about 50 percent of their earnings in dividends. You should track a company's dividend history (for example, 5 years) to predict what future dividends are likely to be. Is the company's dividend policy consistent with your needs?

Cash dividends are fully taxable to you and are typically paid quarterly. If a stock dividend differs in form from the security entitling you to the dividend (for example, you own common stock but receive a preferred stock dividend), you have to pay taxes on the dividends received. If it is the same (for example, you own common stock and receive common stock dividends), there is no tax on the dividends.

Since the stock dividend becomes part of your asset base, tax is paid only when the stock is sold. You may wish to consider stocks paying stock dividends if you are in a high tax bracket. Refer to Standard and Poor's Stock Guide for dividend records and ratings of companies.

Important dates for dividends are:

- *Declaration date*. The date a dividend is declared by the board of directors at which time it represents a legal liability of the company.
- *Date of record*. If you are a registered shareholder on the date of record, you will receive the dividend. The date of record comes after the date of declaration and before the payment date. Caution: Do not sell your stock before the date of record, because you will lose the dividend.
- *Payment date*. The date the dividend will be mailed to you - typically several weeks subsequent to the date of record.
- *Ex-Dividend date*. This is 2 business days prior to the date of record. It determines who is eligible to receive the declared dividend. The ex-dividend date is the day on and after which the right to receive the current dividend is not automatically transferred from the seller to the buyer, and the stock begins to be traded ex-dividend. The dividend will be paid to the stockholder of record before the ex-dividend date.

EXAMPLE 5

A resolution approved at the January 15 (date of declaration) meeting of the board of directors might be declared payable February 15 (date of payment) to all stockholders of record February 1 (date of record).

Note: The general sequence of the dividend process should never change: there should first always be a declaration, then an ex-dividend date, followed by a date of record, and finally the date when investors receive the payment. Today, settlement of stocks is T+3, which means that, when you first buy or sell a stock, it takes three days for the change to be entered into the company's record books. If you are not in the company's record books on the date of record, you won't receive the dividend payment. To ensure that you are in the record books, you need to buy the stock at least three days before the date of record.

EXAMPLE 6

Assume the date of record is 11th (Thursday):

	Ex-dividend date		*Record Date*	
Mon	Tues	Wed	Thurs	Fri
8th	9th	10th	11th	12th

If you buy it on the ex-dividend date (9th), you will not receive the dividend because your name will not appear in the company's record books until Friday (12th). If you want to buy the stock and receive the dividend, you need to buy it on the 8th. If you want to sell the stock and still receive the dividend, you need to sell on the 9th.

A cash dividend is usually stated on a dividend per share basis (for example, $.75 per share). It may also be expressed as a percentage of par value. Par value is an arbitrary amount assigned to a stock certificate as per the corporation's charter.

EXAMPLE 7

You own 10,000 shares of a company that pays a cash dividend of $.50 per share. You will receive: (10,000 x $.50) = $5,000.

EXAMPLE 8

You own 20,000 shares of a company's stock, which has a par value of $10 per share. A 12 percent dividend is declared based on total par value. You will receive: 20,000 x $10 x .12 = $24,000

A stock dividend is payable in shares of stock. It is an issue of new shares expressed as a percentage of shares already held. For example, if you own 500 shares before a 5 percent stock dividend, you will receive an additional 25 shares (500 shares x 5%). A stock dividend is a bookkeeping transfer of equity from retained earnings to paid-in capital. Additional shares are outstanding following the stock dividend, but every shareholder maintains the same percentage of ownership. In effect, a stock dividend divides the pie (the corporation) into more pieces, but the pie is still the same size. You really receive nothing of value with a stock dividend. You receive more shares, but the total cost of your investment remains the same. Hence, a corporation will have a lower EPS and a lower book value per share following a stock dividend, but every shareholder will be just as well off as previously.

Stock dividends basically have a psychological rather than a financial value.

EXAMPLE 9

You own 1,000 shares of ABC Company costing $20 per share, or $20,000. A 10 percent stock dividend is declared. After receiving the stock dividend, you will receive 1,100 shares. Your cost per share now declines to $18.18 ($20,000/1,100). If you later sell 200 shares of stock at $5,000, your gain will be:

Selling price	$5,000
Less: Cost (200 x $18.18)	3,636
Gain	$1,364

Although rare, a property dividend may be paid. The stockholder receives corporate assets such as inventory of the company's products or stock of another company owned by the firm. Also rare is a liability (scrip) dividend where the company issues a note which will be paid at a later date along with interest as the dividend.

Dividend Reinvestment and Cash Option Plans

An advantage of a dividend reinvestment plan is that the company reinvests your dividends to buy more shares without your having to incur a brokerage commission. Although they are becoming less common, some companies offer dividend reinvestment plans with a discount - you may be able to buy the additional shares at a discount price (for example, 1-5 percent) from market price. You may identify those companies offering a dividend reinvestment plan by referring to Moody's Annual Dividend Record.

A drawback to dividend reinvestment is the delay in selling reinvested holdings, since the company typically holds the reinvested shares. Further, a company may not permit you to sell part of the reinvested shares; if you sell, you may have to sell all your holdings to close the dividend reinvestment account. There may be a delay in buying stock through the purchase plan. Some plans also allow you to invest additional cash (above the dividend payment).

In a cash option plan, you can also invest additional monies without brokerage or administrative charges.

An automatic reinvestment plan is a form of "dollar cost" averaging: It allows you to buy stock during price declines as well as price increases, thus "averaging out" the purchase prices.

Determining the Return on Common Stock

You can determine the return on a stock investment by computing the total dollar return, percentage return, dividend yield, and earnings per share.

Dollar Return: Your dollar return from a stock investment represents dividend income and change in market price.

EXAMPLE 10

You buy a stock for $30 and subsequently sell it for $36. The annual cash dividend is $2. Your return per share on the investment is:

Dividend income	$2
Gain ($36 - $30)	6
Total return per share	$8

If you owned 100 shares, your total return would be $800 (100 shares x $8).

Percentage Return (Holding-Period Return): The percentage return or holding-period return earned on your investment equals

$$\frac{\text{(Selling price - Investment) + Dividend}}{\text{Investment}}$$

EXAMPLE 11

You invested $80 in a stock which you sold 3 months later for $90. A $2.50 dividend was received. The quarterly return is:

$$\frac{(\$90 - \$80) + \$2.50}{\$80} = \frac{\$12.50}{\$80} = 15.6\%$$

The equivalent annual return is: 15.6% x 4 = 62.4%

To get a relative idea of how you did, you can compare the return on your stock to the performance of a stock market index (for example, Standard & Poor's 500).

Dividend Yield on Stock: The yield is the percentage return on your common stock investment at its initial cost or present market value. Note that the dividend yield is on a relative (percentage rather than on an absolute (dollar) basis. Yield based on original investment equals

$$\frac{\text{Dividends per share}}{\text{Investment}}$$

EXAMPLE 12

You paid $80 for a stock currently worth $90. The dividend per share is $4. Your yield on the initial investment is:

$$\frac{\$4}{\$80} = .05$$

Dividend yield based on current market price equals

$$\frac{\text{Dividends per share}}{\text{Market price per share}}$$

EXAMPLE 13

Assuming the same facts as in Example 10, the dividend yield based on current market price is:

$$\frac{\$4}{\$90} = .044$$

You can use the dividend yield as an indication of the reasonableness of the stock's price, particularly when dividends are stable (for example, utilities). Yield on stock is also helpful if you're an income-oriented investor who wishes to compare equity dividend returns with those of fixed-income securities.

Dividend yields are highest when stock prices are low, since dividend payments are less volatile than stock prices. A higher dividend yield is desirable. Special note: The dividend yield on stock is usually less than the yield on a bond.

The ratio of market price to dividends per share (inverse of dividend yield) indicates what investors are willing to pay for $1 worth of dividends. If the market price-dividend ratio of the Dow Jones Industrial Average goes below 18 (5 1/2 percent yield), the market is considered undervalued, and an opportunity to buy exists. On the other hand, market price-dividend ratio of about 30 (approximately a 3 percent yield) indicates an overvalued market -- time to sell. Historically, the average yield of the stock market has been about 5 percent. An extreme variation indicates you should proceed with caution.

Dividend Payout Ratio: The dividend payout ratio equals

$$\frac{\text{Dividends per share}}{\text{Earnings per share}}$$

A higher payout ratio indicates the possibility of higher dividends, pointing to higher stock prices. If you're an individual desiring high dividends because you rely on fixed income (for example, if you are retired), you may favor a company with a high dividend payout ratio.

Over the last 100 years, the average payout ratio for "blue chips" has been about 67 percent.

Earnings per Share: Dividends and market price of stock depend upon future earnings per share.

You calculate estimated earnings per share at the end of the year as follows:

$$\frac{\text{Estimated after tax earnings at end of year}}{\text{Estimated outstanding shares at end of year}}$$

EXAMPLE 14

The sales last year were \$2,000,000. You expect sales to grow at a 10 percent rate. The after-tax profit margin is 66 percent. The outstanding shares at year-end are expected to be 1,000,000. The estimated earnings for the year is computed below:

Estimated sales at end of year = \$2,000,000 x 1.10 = \$2,200,000
Estimated earnings = \$2,200,000 x 66% = \$1,452,000

Then the estimated earnings per share for the year is:

$$\frac{\$1{,}452{,}000}{1{,}000{,}000} = \$1.45 \text{ per share}$$

How Do You Value or Price Stock?

In valuing a stock investment, there are several techniques you may employ, including price-earnings (P/E) ratio, price-free cash flow ratio, and price-sales ratio.

Price-Earnings (P/E) Ratio: The price-earnings ratio (multiple) equals

$$\frac{\text{Market price per share}}{\text{Earnings per share}}$$

EXAMPLE 15

The market price of a stock is \$50 and the earnings per share is \$5, the price-earnings ratio is 10 times (\$50/\$5).

The price-earnings ratio measures what investors are willing to pay for \$1 worth of earnings and shows stock price as a multiple of the earnings figure. The ratio indicates the faith of the investing public in the company and is a good measure of expectations (for example, earnings) and thus value. The higher the price-earnings ratio, the greater the expectation of investors for future growth in the value of the stock. Price-earnings ratios of companies are widely available online.

You can use the price-earnings ratio to value a stock. Estimated market price can be determined by

(Estimated earnings per share) x (Estimated price-earnings ratio)

EXAMPLE 16

You expect the profit for ABC Company to be \$2,000,000, based on financial projections you read in a brokerage report and/or management's discussion in the annual report. The company's tax rate is 34 percent. The price-earnings ratio is 10. The after-tax profit is therefore: \$2,000,000 x 66% = \$1,320,000. If expected shares outstanding are 1,000,000, the estimated earnings per share is:

$$\frac{\$1{,}320{,}000}{1{,}000{,}000} = \$1.32$$

The estimated market price = $1.32 x 10 = $13.20

The price-earnings ratio is affected by the following factors, among others:

- Growth rate in earnings
- Cash flow from operations
- Expected dividends
- Riskiness of company
- Instability in stock price and/or earnings
- Degree of competition
- Economic and political uncertainties
- Company's management ability

Price-earnings ratios vary among industries and from company to company within an industry. The price-earnings ratio for a stock will also change with economic, industry, and company conditions. If a company's price-earnings ratio is much higher or lower than the average price-earnings ratio of other companies in the industry, you should determine why. Historically, most large, stable, well-established companies sell at price-earnings ratios between 10 and 20.

Stocks in a given industry usually have about the same price-earnings ratios, and the ratios go up and down together. Companies in growth industries (for example, software) usually have higher price-earnings ratios than companies that are stable.

A high price-earnings ratio is typically justified when corporate earnings are anticipated to grow. A high multiple generally means the stock market expects the company's future earnings to be higher than its current earnings. You must consider a company's current price-earnings ratio in terms of present and future economic and stock market conditions.

A company with a high price-earnings ratio may be an excellent company but not necessarily a good buy. The high price-earnings ratio may reflect exaggerated investor expectations. If you are a long-term investor, a high price-earnings ratio company should perhaps be avoided. If you pay a price that is many times higher than the earnings figure, the stock may have difficulty holding on to that high price. The stock would have to do even better than the current high expectations for you to earn a profit.

Examine P/E multiples for competing companies in a particular industry. This is a good starting point for researching what is happening in the industry. The P/E ratio also reflects investor confidence in the overall stock market.

Also calculate a multiple for the stock market as a whole, or for a stock index. For example, a multiple for the Standard & Poor's 500 can be arrived at as follows:

$$\frac{\text{Average market price per share}}{\text{Average earnings per share}}$$

Average market price per share equals:

$$\frac{\text{Total market value for all issues}}{\text{Number of issues}}$$

Average earnings per share equals:

$$\frac{\text{Total earnings per share for all issues}}{\text{Number of issues}}$$

EXAMPLE 17

The total market price and earnings per share for all companies in an index are $1,200 and $200, respectively. There are 100 companies included in that index. The overall multiple for the companies in the index is:

Average market price per share =	$1,200/100	= $12
Average earnings per share =	$200/100	= $2
The overall multiple =	$12/$2	= 6 times

A low multiple indicates investors look unfavorably on the stock, industry, or overall stock market, or the industry is not viewed as growing significantly. With a low price-earnings multiple stock, a short-term profit opportunity is unlikely. However, low multiples offer profit opportunities in the long term. Suggestion: A good time to buy stocks may be when multiples are less than traditional levels. Tip: Spot a stock selling at a low P/E ratio that has good earnings growth potential. You have less downside risk and good upside potential.

EXAMPLE 18

A company's stock had a P/E ratio ranging from 10 to 20. This information was obtained from reading financial advisory service reports (for example, Standard & Poor's), online websites, brokerage reports, or the company's annual report. The P/E ratio is now 11 (as found online), and the prospects for the industry and company are bright. This may be a buying opportunity.

There is greater risk when buying a stock near its high for the year. The upside may be limited. You are generally better-off buying a stock at its low point or at middle price. However, history has shown that trying to time stocks is a very difficult investment strategy.

The price-earnings ratio may be distorted when a company has volatile earnings. In this case, it is difficult to normalize earnings to compute a meaningful P/E ratio. Instead of using the earnings per share for the last year, you may use average earnings for several years (total earnings/total years) or an average of past and estimated earnings.

EXAMPLE 19

> X Company's earnings are quite unstable. The company's profits were as follows: 20X0, $600,000; 20X1, $2,000,000; 20X2, $1,000,000; 20X3, $1,500,000; and 20X4, $800,000. The average earnings over the 5-year period is: ($600,000 + $2,000,000 + $1,000,000 + $1,500,000 + $800,000) = $5,900,000 divided by 5 years = $1,180,000

Be cautious not to rely too heavily on the price-earnings ratio, because stock market conditions, economic factors, etc., may outweigh the significance of the P/E ratio. The price-earnings ratios for small or speculative companies and for firms with instability in earnings or no earnings records do not provide dependable data on which to base valuation estimates.

If your valuation of a stock differs from the current market price, you may buy it if it is undervalued or sell short if it is overvalued.

Price-Free Cash Flow

Rather than reported earnings, many successful pros focus on free cash flow, or the cash income that a company is left with after paying expenses. If a stock has a low ratio of price to free cash flow, that suggests it is a healthy business that has a lot of money left over for dividends, stock buybacks or other steps to improve a stock's return. This is a measure that should get greater use than it does, because "the value of a business, at the end of the day, is nothing more" than the current value of its future free cash flows. To figure a company's free cash flow, go to the "cash flow statement" in shareholder reports. Take operating cash flows and subtract all capital expenditures, or money reinvested in the business. For companies with a lot of debt or that hold a lot of cash, it is best to also take out interest expense and interest income.

Price-Book Value

Book value (net asset, liquidation value) per share is the amount of corporate assets for each share of common stock. You may benefit by uncovering stock that is selling below book value or whose assets are significantly undervalued. A stock may represent a good value when its market price is below or close to book value because the security is undervalued. Companies with lower ratios of market price to book value have historically earned better returns than those with higher ratios.

Book value is based on historical cost, while market price is based on current prices. Thus, a stock may be undervalued relative to what the company is worth on the books. Because of inflation alone, market price should usually be higher than book value, since book value ignores inflationary increases. However, it should be noted that market price may be less than book value if the company is not doing well financially and/or has dim prospects.

Book value per share equals

$$\frac{\text{Total stockholders' equity}}{\text{Number of shares outstanding}}$$

Where Total stockholders' equity = Total assets - Total liabilities

EXAMPLE 20

You are thinking of investing in a company that has a market price per share of $40. Total stockholders' equity is $5,000,000 and 100,000 shares are outstanding. The book value per share is $50 ($5,000,000/100,000 shares). This may be a buying opportunity, since market price ($40) is well below book value ($50) and an upward movement in prices may occur.

If a company's shares are worth $2 billion and its book value is $1 billion, then it is trading at two times book value. A low price-to-book ratio can give comfort to an investor. That's because a company's book value can be a good starting point in estimating the firm's value in the event it had to be liquidated. Price-to-book is a key metric for financial companies and homebuilders, but is less important for some other industries because book value doesn't include things such as patents, research and development and brands or the creativity of workers. So pharmaceutical and technology companies tend to have low book values -- and high price-to-book ratios.

Price-Sales

Some pros like stocks with a lot of sales compared to their price, or a low price-to-sales ratio. So a company with shares worth $500 million and sales of $1 billion would have an attractive price-to-sales of 0.5. But sales don't guarantee profits. So companies with low price-to-sales ratios should have a good plan to turn those big sales into earnings, or the stocks won't benefit.

How to Use Beta to Select a Stock

Beta refers to the percentage change in the market price of a stock relative to the percentage change in a stock market index (for example, Standard & Poor's 500). Therefore, beta is a measure of the security's volatility relative to an average security. A high beta means a risky security. For example, a beta of 1.8 means that the firm's stock price can rise or fall 80 percent faster than the market.

Beta Value	**Meaning**
(a) < 0	The security's market price moves in the opposite direction from the market. Very few stocks have a negative beta.
(b) 0	The security's return is independent of the market (for example, risk-free U.S. Treasury security).
(c) < 1	The security's price moves in the same direction as the market, but the security's price fluctuates less than the market index. This is a conservative investment.
(d) > 1	The security's price moves in the same direction as the market, but the security's price fluctuates more than the market index. This is a risky security.

Many online investment websites, brokerage houses and investment services, including Value Line, and Standard & Poor's, publish information on beta for various securities.

After determining a security's beta value, you can estimate the required return as follows:

Stock risk premium = Beta value x Market risk premium

EXAMPLE 21

A stock has a beta of +1.2 and the market risk premium is 7 percent. The stock risk premium is:

1.2 x 7% = 8.4%

The Advantages of Dollar-Cost Averaging

You may take advantage of dollar-cost averaging for a stock you consider to be a sound long-term investment. This entails buying a constant dollar amount of a given stock or stocks at regularly spaced intervals -- in other words, time diversification.

By investing a fixed amount each time, you buy more shares when the price is down and fewer shares when the price is up. This usually results in a lower average cost per share since you buy more shares of stock and with the same dollars. Such an approach is advantageous when a stock price moves within a narrow range. If stock prices decline, you lose less money than you ordinarily would. If stock prices rise, you profit, but less than you usually would. However, dollar-cost averaging does involve greater transaction costs. Note: Dollar-cost averaging will not work when the stock price continually drops. In general, dollar-cost averaging is a conservative way to invest, because it screens out "whims" which could result in buying high and selling low.

The advantages of dollar-cost averaging are:

- A conservative stock may be bought with relatively little risk, yielding benefits from long-term price appreciation.
- Buying too many shares at high prices is avoided.
- A bear market provides an opportunity to buy additional shares at particularly low prices.

EXAMPLE 22

You invest $100 a month in XYZ Company and have the following transactions. Assume no brokerage commission.

Date	*Invested*	*Price Per Share*	*Shares Bought*
15-Jan	$100	$20	5
15-Feb	100	15	6 2/3
15-Mar	100	12	8 1/3
15-Apr	100	16	6 1/4
15-May	100	25	4
		$88	30 1/4

You have bought fewer shares at the higher price and more shares at the lower price. The average price per share is:

$$\frac{\$88}{5} = \$17.60$$

With your $500 investment you have acquired 30 1/4 shares, resulting in a cost per share of $16.53. On May 15, the market price of $25 exceeds your average cost of $16.53, reflecting an attractive gain.

Constant-Ratio Plans

Under a constant-ratio plan, you maintain a portfolio that has a constant ratio of stocks to bonds. The plan usually provides for an arbitrary switching period (for example, quarterly or annually). Typically, no buying or selling will occur except in a minimum amount (for example, $2,500).

EXAMPLE 23

Your desired ratio between stocks and bonds is 70 percent. At the present time, your portfolio consists of the following:

Average Price	*Stock Shares*	*Average Stock*	*Value of Bonds*	*Total Value*	*Ratio*
$10	14,000	$140,000	$60,000	$200,000	70%

What happens if the stocks fell by an average of $2 in price? In order to maintain a constant ratio of 70 percent between stocks and bonds, $8,400 in stocks has to be bought and $8,400 in bonds has to be sold. Then, the adjusted values of stocks and bonds are $120,400 and $51,600, as shown below.

Average Price	*Stock Shares*	*Average Stock*	*Value of Bonds*	*Total Value*	*Ratio*
$8	14,000	$112,000	$60,000	$172,000	65%
		+ 8,400	- 8,400		
		$120,400	$ 51,600	$172,000	70%

Stock Valuation

There are several ways to derive a fundamental (theoretical) value for a stock investment. These include time value computations, primarily determining present value; capitalizing earnings; and dividend-based values.

Time Value of Money

The time value of money is important to consider when evaluating stocks. Compound interest computations are necessary to appraise the future value of an investment. Discounting computations are used to analyze the present value of a future cash flow from a stock. This topic was well taken in Chapter 2.

Future Value (Compounding)

A dollar in your hand today is worth more than a dollar you will receive in the future because you can invest and earn interest on it. Compound interest occurs when interest earns interest. Future value indicates the worth of the investment in a later year (see Appendix Table1).

Future Value of an Annuity

An annuity is a series of equal receipts for a specified time period; an example is constant dividends. The future value of an annuity involves compounding, since the payments accrue interest (see Appendix Table 2).

Present Value (Discounting)

Present value computation is the opposite of determining compounded future value (see Appendix Table 3).

Present Value of an Annuity

Constant dividends on stocks or interest on bonds constitute annuities. To compare the financial attractiveness of financial instruments, you have to determine the present value of annuities for each one (see Appendix Table 4).

Common Stock Valuation

Various online services and financial services track industries and companies. They offer expectations as to future earnings, dividends, and market prices of stock. Examples are Yahoo Finance, Standard and Poor's, Moody's, and Value Line. These provide a thorough analysis of companies and provide clues as to future expectations. Standard and Poor's Industry Surveys provide information on specific industries.

The objective of valuing common stock is to ascertain whether the current market price is realistic in view of expected future earnings, dividends, and price. The valuation process is directed at determining whether the stock is properly valued, undervalued, or overvalued.

You can determine a stock's value by computing the present value of a security's anticipated future cash flows, using your required rate of return (the return rate you want to earn on your money) as the discount rate. The value of the common stock is the present value of your expected future cash inflows (from dividends and selling price). Value equals = Present value of future dividends + Present value of selling price.

You use present value tables to find the appropriate factor that corresponds to the rate of return (i) and number of years involved in holding the security (n).

EXAMPLE 24

You are considering whether to buy a stock at the beginning of the year. The dividend at year's end is expected to be $2.00, and the year-end market price is anticipated to be $50. You intend to hold the stock for 1 year. The desired rate of return on your investment is 15 percent. The value of the stock at the end of the year (using Appendix Table 3, present value of $1) equals:

$2.00 x .86957 + $50 x .86957 = $45.22

EXAMPLE 25

You want to estimate the worth of a stock. You anticipate holding it for 10 years and receiving $10 in annual dividends per share. The expected selling price at the end of 10 years is $40 per share. The required rate of return is 10 percent. The estimated value per share can be determined through the use of present value tables. The value per share is:

Present value of annuity of $1	
(Appendix Table 4) ($10 x 6.14457)	$61.45
Plus: Present value of $1	
(Appendix Table 3) ($40 x .38554)	$15.42
Total present value of dividends and selling price	$76.87

If the stock's market price was $95 per share, you would not buy it, since that price is more than the $76.87 computed value based on your required rate of return.

EXAMPLE 26

You buy a stock with expected dividends growing at 10 percent, as follows:

Year	*Dividend*
1	$1.20
2	$1.32
3	$1.45

The value of the stock today is computed using Appendix Table 3, "Present Value of $1," as follows:

Year		*Present Value (Year 0)*
1	$1.20 x .893	$1.07
2	$1.32 x .797	1.05
3	$1.45 x .712	1.03
3	$20 x .712	14.24

Total Value $17.39

If the stock was selling today at $14, you would buy it, since it is undervalued.

Perpetuities are annuities that continue forever. An example is a stock that yields a constant-dollar dividend indefinitely. The value of the stock equals

$$\frac{\text{Dividends per share}}{\text{Discount rate}}$$

Tip: Common stock valuation based on dividends is most appropriate for mature companies or those with a consistent long history of dividends.

EXAMPLE 27

You are thinking of buying a stock that pays the same dividend forever ($3.00). If you require a 10 percent return, the value of the stock is:

$$\frac{\$3.00}{.10} = \$30$$

Gordon's model, a traditional financial model named for the individual who derived it, can be used to determine the value of common stock assuming a constant growth rate in dividends. The model is:

$$\text{Price} = \frac{\text{Dividends per share (current year)}}{\text{Required rate – Growth rate dividends}}$$

The model mostly applies to valuing the common stocks of larger, diversified companies.

EXAMPLE 28

You are considering buying a stock that paid a $5 dividend per share at the end of last year and is expected to pay a cash dividend each year at a growth rate of 10 percent. The required rate of return is 14 percent. The value of the stock is:

$$\text{Price} = \frac{\$5.50}{.14 - .10} = \frac{\$5.50}{.04} = \$137.50$$

Note: The Gordon’s dividend growth model estimates the required rate of return on common stock using the dividends per share, the market price, and the expected growth rate.

$$\text{Required rate of return} = \frac{\text{Dividend}}{\text{Price}} + \text{Growth rate}$$

This model assumes that the payout ratio, retention rate, and the earnings per share growth rate are all constant.

The Importance of Stock Volume Numbers

You may learn something by looking at the volume traded in stock. For example, declining volume traded and a strong increase in the price of the stock indicates that buyers are more wary. Increased volume along with a drop in the stock price indicates that institutions may be selling the stock. The situation is most positive when volume and price move together, when price rises on substantial volume. Most financial websites and daily newspapers have a financial page listing the 15 most active stocks of the day.

It is generally best to trade in active stocks, because of readier marketability and less possible manipulation in price. In a "bull market" there are rising stock prices and increasing volume while in a "bear market" there are decreasing prices and a pessimistic outlook.

Buying a Stock on Margin (Credit)

If you purchase stock on margin, you are buying securities on credit. Interest will be charged by your broker on the unpaid balance. The brokerage firm typically charges the borrowing investor 2 percent more than it is charged by the bank. A brokerage firm can lend you up to 50 percent of total value of stocks, up to 70 percent for corporate bonds, and up to 90 percent for U.S. Government securities. You have to put up more cash for equity securities than for bonds because of the greater risk involved. If the value of your portfolio declines enough to jeopardize the brokerage loan on your margin account, you will receive a "margin call" to put up additional money or securities, or sell some stock. A margin account typically requires a minimum of $2,000 in cash (or equity in securities) on deposit.

Buying on margin gives you the opportunity to improve your return through leverage (buying on credit). You make a partial payment for a stock that has appreciated in value. However, your loss can also be magnified, if the value of the security portfolio declines.

To open a margin account, you have to deposit a specified amount of cash or its equivalent in marginable securities. Securities bought on margin will be held by your broker in "street name" -- that is, in the name of the brokerage firm.

EXAMPLE 29

You bought 100 shares of XT Company at $20 per share on margin 1 year ago. The brokerage fee was $50. You paid 60 percent of the cost and borrowed the remainder at 12 percent. You just sold the stock for $35 per share less a brokerage fee of $100. Comparing the gain or loss and the return on initial investment without margin and with margin yields the following.

	Without Margin	*With Margin*	
Cash paid	$2,050	$1,230	(a)
Borrowing on margin	0	820	(b)

Initial Cost	$2,050		$2,050	
Interest charge	0		98	(c)
Total cost	$2,050		$2,148	
Net sales proceeds	$3,400	(d)	$3,400	
Gain or loss	$1,350		$1,252	
Return on initial cash investment	65%	(e)	101.8%	(f)

(a) $2,000 + $50 = $2,050 x 60% = $1,230
(b) $2,050 x 40% = $820
(c) $820 x 12% = $98
(d) $3,500 - $100 = $3,400
(e) Gain/Initial cash investment = $1,350/$2,050 = 65.9%
(f) Gain/Initial cash investment = $1,252/$1,230 = 101.8%

Initial Public Offerings

An initial public offering occurs when a company issues stock for the first time. Some new issues are offered by established, financially strong companies to obtain money or to go public. However, most new issues are offered by small, unknown, newly formed companies. Typically, they do not have track records. Beware: These companies represent speculative investments. But new issues are potentially profitable, because these securities may have high returns in the initial period after the stock "goes public." On average, new issue performance is positive because the stocks are generally underpriced slightly. Note: It can be very difficult to buy new public offerings because most new issues are purchased by large financial institutions or organizations, or very wealthy individuals.

Shorting a Stock

Short selling is used to profit from a decline in stock price. To make a short sale, your broker borrows stock from someone and then sells it for you to someone else. When the stock price falls, you buy shares to replace the borrowed ones. If you buy the shares back at a lower price than the broker sold them for, you earn a profit. You "sell short against the box" when you sell short shares you actually own (not borrowed shares).

You incur a loss with short selling when the repurchase price is higher than the original selling price. Significant losses are possible, since the stock price may increase indefinitely. No matter how high it goes, you will have to buy securities to "cover," or replace, the borrowed ones.

To sell short, you must have a margin account with cash or securities valued at a minimum of 50 percent of the market value of the stock you want to sell short. While selling short normally requires no interest charge, you will have to retain the proceeds from the sale in your brokerage account. Of course, brokerage commissions will have to be paid on the sale and repurchase.

You may want to sell short when a decline in stock price is anticipated or you wish to postpone making a gain and paying taxes on it from one year to the next.

When selling short a stock, consider the following: Do not go against an upward trend in stock prices; if stock prices go up 10 to 15 percent, cover the short sale; and do not short several stocks at once.

You may sell short when officers of the company have sold a good part of their shares; prices for the stock are volatile; professionals forecast lower corporate earnings; the stock has "zoomed" up in a relatively short period of time; it is a "glamour" stock losing popularity; and it is a stock that has started to decline more than the market average.

Avoid selling short the following securities: issues with limited shares outstanding; securities with a large short interest; and stocks of companies that are candidates for takeovers.

A disadvantage of selling short a stock is that you have to pay the dividends declared by the company to the person or firm from whom you borrowed the shares. Your brokerage firm will deduct the dividend from your account and place it in the account of the individual who lent you the shares. Tip: Sell short stock paying low or no dividends.

Recommendation: Place a limit order rather than a market order when you sell short. There is a danger in shorting a stock "at the market" since it can only be shorted on an "uptick" (that is, when the current price is higher than the previous one). However, over-the-counter stocks can be sold short at any time. If the stock falls drastically, it may be some time before an "uptick" occurs.

EXAMPLE 30

> If a stock was initially at $40 when you placed your order, and drastically falls by the time it is sold short, the price may be $35. It would have been better to protect yourself against such a situation by putting in a limit order to sell, say, for $38 or better.

EXAMPLE 31

> You sell short 100 shares of stock with a market price of $30. The broker borrows the shares for you and sells them to someone else for $3,000. Subsequently, you buy the stock back at $25 a share, and return the shares to the broker. You will earn a profit per share of $5, or a total of $500 before brokerage charges.

Timing the Market

Great uncertainty may exist as to whether the market is at a peak or a bottom. No one can really predict accurately whether stocks will increase or decrease in price. Many studies have shown that is impossible to time the stock market consistently. The important take-away is not to buy your entire portfolio at the top of a bull market when stocks appear very attractive when there is only good news. You may have to wait a long time for gains, because it may take years for the market to regain a prior peak.

If you buy for the long term, chances are that corporate earnings and multiples will increase. To avoid buying your portfolio at a market peak, acquire a few securities at a time, staggering your stock acquisitions over months and years. See the section above about dollar averaging.

Do not be fully invested in stocks for the amount of money you have reserved for investment. Keep some funds liquid for market declines, so you can take advantage of buying opportunities. Keep investing each year until your portfolio is diversified.

Buy a stock that no longer reacts negatively to bad economic news, since the news has already been discounted in its price. It probably will not decrease further.

If the price of a security is currently so high that it would not be a good buy, it may be time to sell. Selling should be done at one of the various phases of a bull market at the end of which a significant drop in prices may occur. In the last phase of a bull market, stock prices move above their intrinsic value and start to discount future possible events.

When buying and selling of stocks, you should consider three sets of indicators: economic, monetary, and psychological.

Economic Indicators

Economic indicators apply to the business outlook. Economic factors influence stock price. A growing economy will lead to improved profitability and dividends; thus it is bullish for stocks. A decline in real gross domestic product (GDP) will result in lower profits and dividends, causing a decline in stock prices. Buy stock when the economy has entered a recession -- that is, when real GDP declines for two consecutive quarters. Sell when the economy is growing at an unsustainable rate (for example, 10 percent annual rate for two quarters).

Economic indicators can be used to confirm market direction. For example, if the economy is contracting at an unsustainable rate, stock prices will shortly do better, to reflect the better business environment that will emerge. Once the stock market does not react to bad news anymore, the market has already discounted the bad news and stock prices should start to move upward.

Monetary Indicators

Monetary indicators apply to Federal Reserve actions and the demand for credit. Monetary indicators involve long-term interest rates, which are important since bond yields compete with stock yields. Monetary and credit indicators are often the first signs of market direction. If monetary indicators move favorably, this is an indication that a decline in stock prices may be over.

A stock market top may be ready for a contraction if the Federal Reserve tightens credit, making consumer buying and corporate expansion more costly and difficult.

Good monetary indicators include:

- Dow Jones 20-bond index

- Dow Jones utility average
- New York Stock Exchange utility average

Bonds and utilities are yield instruments and therefore money-sensitive. They are impacted by changing interest rates.

If the above monetary indicators are active and pointing higher, it is a sign the stock market will start to take off. In other words, an upward movement in these indicators takes place in advance of a stock market increase.

Psychological Indicators

Psychological indicators are important. If much emotion surrounds the market, than irrationality exists, and stocks are close to a reversal in trend. Psychological indicators apply to investor's attitudes regarding stocks.

Psychological indicators include whether stocks are in strong (financial institutions) or weak (average people's) hands; how much potential buying power is available; whether selling pressure has stopped; and whether the market is behaving emotionally.

Portfolio Diversification

To lower risk, diversify your stockholdings rather than investing in just one or two stocks and becoming highly vulnerable to stock price movements. Diversification reduces the volatility of your overall stockholdings. However, overall return may also be lessened.

Diversification may mean a stock portfolio includes growth stocks, income-oriented stocks, stable stocks, and speculative stocks. It is also possible to gain some diversification by buying a stock of a company that is itself widely diversified in its manufacturing and holding activities. Diversification is a defensive technique and reduces the risk of loss.

You should also diversify your investments over time so as to offset the ups and downs of the market.

Different Stock Strategies

After you have looked at the financial data available online for competing companies in an attractive industry and determined that a particular company is a good value, you may want to buy it. The online sites or your broker will typically show different rating systems, such Standard and Poor's, emphasizing earnings, dividend stability, and growth. An "A+" or ‘5 star” rating indicates the highest growth and stability of earnings and dividends.

In deciding whether to invest in a particular company, you should ask the following questions:

- How is the company's cash flow?
- What is the capital spending of the company for expansion purposes?

- Is corporate debt excessive?
- What is the variability and growth in stock price, dividends per share, earnings per share?
- Do earnings rise or fall in cycles?
- Is the company excessively regulated by the government?
- Invest in quality companies (financially strong leaders in their fields that have had consistent high, profitable growth) and in the long term you should profit.
- Buy an undervalued stock, which may be indicated by
  - A P/E ratio no more than twice the prevailing interest rate (for example, a P/E ratio of 20 compared to an interest rate of 10 percent).
  - A market price of 20 percent or more under book value.
- Value may be found in stocks that are at new 52-week lows. Value may also be found in industry groups that have had a washout and are now fully neglected. The future may be good if the industry satisfies a long-term need, providing a necessary function or service.
- One strategy for investing is to buy stocks with relatively low P/E ratios and high dividend yields. Some investors use the "7 and 7" strategy, according to which a stock is bought if the P/E ratio is less than 7 and the dividend yield is greater than 7.
- In general, do not stay with an unprofitable stock too long if the future prospects are also poor. Take your small loss now before things get worse.
- When the worst that can possibly happen to the stock market does actually happen, stock prices are bound to move upward.
- If a stock market index is very depressed (for example, Dow Jones Industrial Average), and you notice that advancing issues begin to exceed declining issues for the first time, an upward trend may be occurring.
- About 2 weeks prior to the end of a calendar quarter (for example, June 30), buy high-grade stocks that have had a big move in the past 30 days. These stocks are being bought by institutional investors to enhance their reports. The upturn in those stocks should continue for a while.

One approach to investing in the market is practicing "contrary opinion." You determine what popular opinion is and do the opposite. When an idea is in the minds of a vast number of investors, it is likely that the idea is based on emotions rather than on rational thought. One way of telling this is when many odd-lot transactions occur, which indicates what "small" investors are doing. Usually, small investors do the wrong thing. For example, small investors typically buy when they should be selling. When you hear only good things about the stock market or individual industries, watch out for a possible trend reversal. For example, when a great number of investment advisory services are bullish, this may be a bearish sign.

Also, you should consider mutual funds, index funds or exchange traded funds (ETFs) that cover a specific area of the market. They provide an excellent form of diversification across an industry or region, and allow an investor to ignore the individual ups and downs of a specific stock. The returns may be less exciting, but they can be significantly more diversified and risk-free.

Investment Portfolios

A stock portfolio is one that is a list of investments that have been bought because each one satisfies your objectives. Recommendation: Have a conservative investment portfolio of high-grade stocks to assure security and stability. A conservative portfolio will generally result in steady income flows with relatively minor fluctuations in price.

You should know the following about investments:

- Invest for the long term. Frequent trading involves a lot of transaction costs. Further, it is difficult to predict the performance of a stock in the short run. Do not be concerned with temporary price changes.
- Buy low and sell high. When the market looks worst, a buying opportunity exists because prices are low. When the market looks great, opportunities are minimal and risks are greatest including the time to sell.
- Have a cash reserve to "pick up" bargains.
- Avoid buying on margin since you may become nervous in a market decline at which time you may sell at close to the market bottom.
- Avoid short selling a stock because it may be difficult to continue a short position as the stock rises in value.
- Buy quality stocks since there is less likelihood of your losing money.
- Do not expect to make a "killing" from speculation since earning money usually doesn't come easy. It is better to obtain a reasonable return.
- Do not sell a stock just because you earned a profit on it when it reached your arbitrary selling price. The stock may go higher than you anticipate.
- Do not sell during a panic because stock prices and conditions will probably improve.
- Be wary when the market is moving in one direction contrary to news. For example, if the economy is good but the market is declining, you should be concerned.
- In a bull market, most stocks eventually go up. Thus, do not sell a stock that has not moved yet because of impatience. You may sell it just before it rises.
- Typically, buy or sell in a trendless period (prices and volume are steady) since you will obtain better values. You usually do not get the best price in a frenzy period.
- Most stock movements go considerably beyond where they are anticipated to go. For example, if the consensus in a bull market is that the Dow Jones Industrial Average will go to 15,000, it may even reach 16,000.
- Do not purchase a previous leader in a bull market because of profit taking. Wait until investors are disillusioned with the stock. Wait until bad news does not result in declining prices. Buy the stocks when they start to go up on bad or good news.
- If stock prices hold up when volume decreases, it is a bullish sign and may be a time to buy.
- The market usually goes lower in the fall and late spring, and moves higher around year's end and in the summer.

- If you buy a stock in a young industry (for example, biotechnology), invest only in the companies already earning money since they already show success.
- The bottom of a market may be indicated and a buying opportunity may exist when stocks show a resistance to further declines.

Note: If you typically buy individual stocks, Value Line Investment Advisory Service recommends you should have a portfolio of at least 15 stocks, drawing from at least eight industries.

Diversified Investing

For most individual investors, having a diversified portfolio is the safest way to invest. Most people should take advantage of mutual funds, index funds and exchanged traded funds (ETFs) in developing a well-diversified and relatively safe portfolio. By picking the right mix of investments, you may be able to limit your losses and reduce the fluctuations of your investment returns without sacrificing too much in potential gains. Some investors find that it is easier to achieve diversification through ownership of mutual funds or exchange-traded funds rather than through ownership of individual stocks or bonds.

It can be risky to invest heavily in shares of any individual stock. In particular, you should think twice before investing heavily in shares of your employer's stock. If the value of your employer's shares declines significantly, or the company goes bankrupt, you may lose money and there's a chance you might lose your job, too.

Tax Implications of Stock Market Investments

Some important tax rules are:

- Dividends received are fully taxable.
- A long-term capital gain occurs when stock held more than one year is sold at a gain. The gain is the amount that the selling price of the stock less selling costs (commissions) exceeds the cost of the stock plus purchase costs (commissions). A long-term capital loss occurs when stock held more than one year is sold at a loss. The loss is the amount the cost of the stock plus purchase costs (commissions) exceeds the selling price of the stock less selling costs (commissions). A short-term capital gain occurs when stock held one year or less is sold at a gain. A short-term capital loss occurs when stock held one year or less is sold at a loss. The amount of the gain or loss is computed the same as long term capital gains and losses above.
- All capital gains and losses are netted against each other until there are all gains or all losses. A net short-term capital loss occurs when net short-term capital losses (short term capital losses minus short term capital gains) exceed net long-term capital gains (long term capital gains minus long term capital losses). Net short-term capital losses reduce ordinary income up to $3,000 per year. Any net short-term capital losses in excess of $3,000 are carried forward indefinitely until used.
- A net long-term capital loss occurs when net long term capital losses (long term capital losses minus long term capital gains) exceed net short-term capital gains (short term capital gains

minus short term capital losses). Net long-term capital losses reduce ordinary income up to $3,000 per year. Any net long-term capital losses in excess of $3,000 are carried forward indefinitely until used.

- If there are both net long term capital losses and net short term capital losses, the reduction in ordinary income is still a maximum of $3,000. When both net long term and net short term capital losses exist, the net short term capital losses are used before the net long term losses. Both unused net long term and net short term losses may still be carried forward indefinitely until used.
- Net long term capital gains are taxed at special rates that may be less than ordinary income tax rates.
- Net short term capital gains are taxed at ordinary income rates.
- You must report your gains from the sale of stock on the trade date (date you sell the stock) instead of the settlement date (3 business days later, when the broker must make payment to you). The settlement date may be in a later year.
- A technique for postponing the tax on the gain from a disposition of stock while simultaneously protecting that gain is to sell short. If you own appreciated stock, you may sell short near the end of the year and then deliver the stock to the dealer and realize the gain after the New Year.
- Some investments provide tax advantages. For example, employer-sponsored retirement plans and individual retirement accounts generally provide tax advantages for retirement savings, and 529 college savings plans also offer tax benefits. Individuals who are interested in learning about the tax impact of their investment decisions should consult their tax adviser or visit the IRS website.

Conclusion

When you invest in common stock, you must consider the risk-return trade-off. Your investment has to take into account your objectives, liquidity, tax position, risk preferences, need for steady income, growth potential, etc. There are numerous measurements of stock value you can use, such as the price-earnings ratio, discounted value of expected dividends and market price and capitalization of earnings. Proper timing of buying and selling securities is also essential for your stock portfolio. If you invest right, your wealth will be maximized.

Websites for Stock Screening

Here are Websites that help you evaluate stocks.

Yahoo Finance
http://finance.yahoo.com/

Charles Schwab
https://www.schwab.com

MSN Money
moneycentral.msn.com

Google Finance
www.google.com/finance

Morningstar
www.morningstar.com

PortfolioMonkey
www.portfoliomonkey.com

Chapter 13 Review Questions

1. The par value of a common stock represents

A. The estimated market value of the stock when it was issued.
B. The total value of the stock that must be entered in the issuing corporation's records.
C. The liability ceiling of a shareholder when a company undergoes bankruptcy proceedings.
D. A theoretical value of $100 per share of stock with any differences entered in the issuing corporation's records as discount or premium on common stock.

2. Common shareholders with preemptive rights are entitled to

A. Purchase any additional shares sold by the firm.
B. Vote first at annual meetings.
C. Purchase any additional bonds sold by the firm
D. Gain control of the firm in a proxy fight.

3. The date when the right to a dividend expires is called the

A. Holder-of-record date.
B. Ex-dividend date.
C. Payment date.
D. Closing date.

4. A stock dividend decreases future earnings per share (EPS). True or False?

5. Stock dividends and splits differ in that

A. Splits involve a bookkeeping transfer of equity from retained earnings to paid-in capital..
B. Splits are paid in additional shares of common stock, whereas a share dividend results in replacement of all outstanding shares with a new issue of shares.
C. A share dividend results in a decline in the par value per share.
D. In a split a larger number of new shares replaces the outstanding shares.

6. Which of the following criteria theoretically should be used to determine the valuation of common stock?

A. Book value.
B. Cash dividends.
C. Beta coefficient.
D. Standard deviation of returns.

7. By using the Gordon's dividend growth model, estimate the required rate of return on common stock for a firm with a stock price of $30, an estimated dividend at the end of the first year of $3.00 per share, and an expected growth rate of 10%.

A. 21.1%
B. 20.0%
C. 11.0%
D. 10.0%

8. The investor's required rate of return on the firm's stock is directly applied in determining the value of a stock when using the Gordon's dividend growth model. True or False?

9. Assume that interest rates just increased substantially but that the expected future dividends for a company over the long run were not affected. As a result of the increase in interest rates, the company's share price should decrease. True or False?

10. The common stock of the Nicolas Corporation is currently selling at $80 per share. The leadership of the company intends to pay a $4 per share dividend next year. With the expectation that the dividend will grow at 5% perpetually, what will the market's required return on investment be for Nicolas common stock?

A. 5%.
B. 10%.
C. 5.25%.
D. 7.5%.

11. The term "short selling" is the

A. Selling of a security that was purchased by borrowing money from a broker.

B. Selling of all the shares you own in a company in anticipation that the price will decline dramatically.
C. Selling of a security that is not owned by the seller.
D. Betting that a stock will increase by a certain amount within a given period time.

Chapter 13 Review Answers

1. The par value of a common stock represents

A. Incorrect. Par value is rarely the same as market value. Normally, market value will be equal to or greater than par value, but there is no relationship between the two.
B. Incorrect. All assets received for stock must be entered into a corporation's records. The amount received is very rarely the par value.
C. **Correct.** Par value represents a stock's legal capital. It is an arbitrary value assigned to stock before it is issued. Par value represents a shareholder's liability ceiling because, as long as the par value has been paid in to the corporation, the shareholders obtain the benefits of limited liability.
D. Incorrect. Par value can be any amount more or less than $100.

2. Common shareholders with preemptive rights are entitled to

A. **Correct.** Preemptive rights protect common shareholders' proportional ownership interests from dilution in value. A secondary purpose is to maintain the shareholders' control of the company. Accordingly, the preemptive right, whether granted by statute or by the corporate charter, grants common shareholders the power to acquire on a pro rata basis any additional common shares sold by the firm. Preemptive rights also apply to debt convertible into common shares.
B. Incorrect. There is no prescribed order of shareholder voting.
C. Incorrect. Preemptive rights concern only equity ownership. Thus, they do not apply to nonconvertible debt.
D. Incorrect. A proxy fight is an attempt to gain control of a company by persuading shareholders to grant their voting rights to others.

3. The date when the right to a dividend expires is called the

A. Incorrect. The date of record is the date on which the corporation determines which stockholders will receive the declared dividend. Essentially, the corporation closes its stockholder records as of this date. Only those stockholders who own the stock on the date of record will receive the dividend. It typically falls from 2 to 6 weeks after the declaration date.
B. **Correct.** This is 2 business days prior to the date of record. It determines who is eligible to receive the declared dividend. The ex-dividend date is the day on and after which the right to receive the current dividend is not automatically transferred from the seller to the buyer, and the stock begins to be traded ex-dividend. The dividend will be paid to the stockholder of record before the ex-dividend date.

C. Incorrect. The date of payment is the date on which the dividend is actually paid; i.e., the checks are put into the mail to the investors on this date. The payment date is usually from 2 to 4 weeks after the date of record.
D. Incorrect. The closing date is a date on which a transaction is concluded, especially when a seller delivers a deed and a buyer pays for it

4. A stock dividend decreases future earnings per share (EPS). True or False?

True is correct. A stock dividend is a transfer of equity from retained earnings to paid-in capital. Additional shares are outstanding following the stock dividend, but every shareholder maintains the same percentage of ownership. In effect, a stock dividend divides the pie (the corporation) into more pieces, but the pie is still the same size. Hence, a corporation will have a lower EPS and a lower book value per share following a stock dividend, but every shareholder will be just as well off as previously.

False is incorrect. A stock dividend changes the composition of the shareholders' equity section of the balance sheet. More outstanding shares will lead to a lower EPS.

5. Stock dividends and splits differ in that

A. Incorrect. Share dividends involve a transfer. Splits do not involve a change in the capital accounts.
B. Incorrect. Share dividends are paid in additional common shares. In splits, all outstanding shares are replaced with a new issue of shares.
C. Incorrect. In a split, there is a large decline in the carrying amount, and in the market value, per share. A share dividend does not affect the par value.
D. **Correct.** A split does not involve any accounting entries. Instead, a larger number of new shares are issued to replace and retire all outstanding shares

6. Which of the following criteria theoretically should be used to determine the valuation of common stock?

A. Incorrect. Book value is a measure of the stock's worth on a company's accounting records.
B. **Correct.** The measure of the value of an individual stock is dependent entirely upon the stream of future cash flows that it will produce. To determine the stock's current value, these cash flows should be discounted to time zero (now) to obtain the stream's present value. Stocks primarily provide cash flows to investors via dividends (including share repurchases and liquidating dividends) and capital gain (loss) at the time of sale. Once the stream of cash flows has been discounted over a significant number of periods, it is easy to see that the dividend

stream, not the capital gain (loss) in the final period, drives the value of the stock in question. Of course, all firms do not pay a dividend. Common financial theory, however, states that it is the intention of every firm to pay a dividend to shareholders at some time in the future, once the firm feels it is strong enough to do so and still support future operations. After all, it is the primary goal of a firm's management to maximize shareholder wealth. Although many factors should be considered when purchasing a security, the primary consideration for a value-seeking investor is the future cash flow stream.

C. Incorrect. The beta coefficient is a measure of how volatile the price movements of a stock are relative to the market as a benchmark.
D. Incorrect. Standard deviation is a measure of risk. While risk is a consideration for the investor, one of the fundamental concepts in finance is that there is (should be) a trade-off between risk and return, and as long as risk is compensated for, it is not a primary consideration.

7. By using the Gordon's dividend growth model, estimate the required rate of return on common stock for a firm with a stock price of $30, an estimated dividend at the end of the first year of $3.00 per share, and an expected growth rate of 10%.

A. Incorrect. 21.1% equals the sum of the growth rate (10%) and the dividend incorrectly divided by the share price discounted one year.
B. **Correct.** Under the Gordon's dividend growth model, required rate of return = (dividend/price growth rate) = [($3 ÷ $30) + 10%] = 20%. This model assumes that the payout ratio, retention rate, and the earnings per share growth rate are all constant.
C. Incorrect. 11.0% equals the growth rate (10%) plus 10% of the current dividend yield (10%).
D. Incorrect. 10% is the growth percentage.

8. The investor's required rate of return on the firm's stock is directly applied in determining the value of a stock when using the Gordon's dividend growth model. True or False?

True is correct. The Gordon's dividend growth model is used to calculate the price of a share. The price = (dividends per share of the current year) / (required rate of return – growth rate in dividends).

False is incorrect. The Gordon's dividend growth model uses the growth rate in dividends and the investor's required rate of return.

9. Assume that interest rates just increased substantially but that the expected future dividends for a company over the long run were not affected. As a result of the increase in interest rates, the company's share price should decrease. True or False?

True is correct. A higher interest rate raises the investor's required return, which results in a lower share price if the expected dividends do not increase as well.

False is incorrect. Assuming that dividend per share and growth rate in dividends remain constant, an increase in the required rate of return resulting from a rise in interest rates will cause the price to decrease.

10. The common stock of the Nicolas Corporation is currently selling at $80 per share. The leadership of the company intends to pay a $4 per share dividend next year. With the expectation that the dividend will grow at 5% perpetually, what will the market's required return on investment be for Nicolas common stock?

A. Incorrect. 5% represents only half of the return elements (either yield or growth).
B. **Correct.** The Gordon's dividend growth model estimates the required rate of return on common stock using the dividends per share, the expected growth rate, and the market price. The required rate of return = (dividend/price) + Growth rate = $4/$80 + 5% = 5% + 5% = 10% . The current dividend yield is 5% ($4 ÷ $80). Adding the growth rate of 5% to the yield of 5% results in a required return of 10%.
C. Incorrect. The growth rate is based on market value, not yield.
D. Incorrect. The yield and growth rate are 5% each--a total of 10%.

11. The term "short selling" is the

A. Incorrect. Margin trading involves buying securities by borrowing money from a broker.
B. Incorrect. The investor does not own the shares sold in a short sale.
C. **Correct.** Short selling is accomplished by borrowing securities form a broker and selling those securities. At a later time, the loan is repaid by buying securities on the open market and returning them to the broker. The seller speculates that the stock's market price will decline.
D. Incorrect. The short seller is betting that the stock will decrease in price.

Chapter 14:

Fixed-Income Securities

Learning Objectives

After reading this chapter you will be able to:

- Identify the terms and features of bonds.
- List the types of bonds and methods for selecting bonds.
- Calculate yield (effective rate of return) on a bond.
- Differentiate between a bond and preferred stock.
- Identify other fixed-income securities short-term "parking lots."

Fixed Income Securities

Fixed income securities generally stress current fixed income and offer little or no opportunity for appreciation in value. They are usually liquid and bear less market risk than other types of investments. Fixed income investments perform well during stable economic conditions and lower inflation. As interest rates drop, the prices of fixed income investments increase. Examples of fixed income securities include:

- Corporate bonds
- Government bonds
- Municipal bonds
- Preferred stocks
- Short-term debt securities

Bonds

A bond is a certificate or security showing that you loaned funds to a company or to a government in return for fixed future interest and repayment of principal. Bonds have the following advantages:

- There is fixed interest income each year.
- Bonds are safer than equity securities such as common stock. This is because bondholders come before common stockholders in the distribution of earnings and in the event of corporate bankruptcy.

Bonds suffer from the following disadvantages:

- They do not participate in incremental profitability.
- There is no voting right.

Terms and Features of Bonds

There are certain terms and features of bonds you should be familiar with, including:

1. *Par value*. The par value of a bond is the face value, usually $1,000.
2. *Coupon rate*. The coupon rate is the nominal interest rate that determines the actual interest to be received on a bond. It is an annual interest per par value.
3. *Maturity date*. It is the final date on which repayment of the bond principal is due.
4. *Indenture*. The bond indenture is the lengthy, legal agreement detailing the issuer's obligations pertaining to a bond issue. It contains the terms of the bond issue as well as any restrictive provisions placed on the firm, known as restrictive covenants. The indenture is administered by an independent trustee. A restrictive covenant may include maintenance of (a) required levels of working capital, (b) a particular current ratio, and (c) a specified debt ratio.
5. *Trustee*. The trustee is the third party with whom the indenture is made. The trustee's job is to see that the terms of the indenture are actually carried out.
6. *Yield*. The yield is different than the coupon interest rate. It is the effective interest rate you are earning on the bond investment. If a bond is bought below its face value (i.e., purchased at a discount), the yield is higher than the coupon rate. If a bond is acquired above face value (i.e., bought at a premium), the yield is below the coupon rate.
7. *Call provision*. A call provision entitles the corporation to repurchase, or "call," the bond from their holders at stated prices over specified periods.
8. *Sinking fund*. In a sinking fund bond, money is put aside by the company periodically for the repayment of debt, thus reducing the total amount of debt outstanding. This particular provision may be included in the bond indenture to protect investors.

Types of Bonds

There are many types of bonds according to different criteria including:

1. *Mortgage bonds*. Mortgage bonds are secured by physical property. In case of default, the bondholders may foreclose on the secured property and sell it to satisfy their claims.
2. *Debentures*. Debentures are unsecured bonds. They are protected by the general credit of the issuing corporation. Credit ratings are very important for this type of bond. Federal, state, and municipal government issues are debentures. Subordinated debentures are junior issues ranking after other unsecured debt as a result of explicit provisions in the indenture. Finance companies have made extensive use of these types of bonds.
3. *Convertible bonds*. These bonds are subordinated debentures that may be converted, at your option, into a specified amount of other securities (usually common stock) at a fixed price. They are hybrid securities having characteristics of both bonds and common stock in that they provide fixed interest income and potential appreciation through participation in future price increases of the underlying common stock.
4. *Income bonds*. In income bonds, interest is paid only if earned. They are often called reorganization bonds.
5. *Tax-exempt bonds*. Tax-exempt bonds are usually municipal bonds where interest income is not subject to federal tax, although the Tax Reform Act (TRA) of 1986 imposed restrictions on the issuance of tax-exempt municipal bonds. Municipal bonds may carry a lower interest than taxable bonds of similar quality and safety. However, after-tax yield from these bonds are usually more than a bond with a higher rate of taxable interest.
6. *U.S. government securities*. They include bills, notes, bonds, and mortgages such as "Ginnie Maes." Treasury bills represent short-term government financing and mature in twelve months or less. U.S. government notes have a maturity of one to ten years whereas U.S. bonds have a maturity of ten to twenty five years and can be purchased in denominations as low as $1,000. All these types of U.S. government securities are subject to federal income taxes, but not subject to state and local income taxes. "Ginnie Maes" represent pools of 25- to 30-year Federal Housing Administration (FHA) or Veterans Administration (VA) mortgages guaranteed by the Government National Mortgage Association.
7. *Zero-coupon bonds*. With zero coupon bonds, the interest instead of being paid out directly is added to the principal semiannually and both the principal and accumulated interest are paid at maturity. This compounding factor results in you receiving higher returns on your original investment at maturity. Zero-coupon bonds are not fixed income securities in the historical sense, because they provide no periodic income. The interest on the bond is paid at maturity. However, accrued interest, though not received, is taxable yearly as ordinary income. Zero coupon bonds have two basic advantages over regular coupon-bearing bonds: (1) A relatively small investment is required to buy these bonds; and (2) You are assured of a specific yield throughout the term of the investment.
8. *Junk bonds*. Junk bonds are bonds with a speculative credit rating of BB or lower by Moody's and Standard & Poor's rating systems. They are issued by companies without track records of sales and earnings and are therefore risky for conservative investors. Since junk bonds are known for their high yields, many risk-oriented investors specialize in trading them.
9. *Serial bonds*. Serial bonds are bonds that mature in installments over time rather than at one maturity date.

Selecting Bonds

When selecting a bond, you should take into consideration some basic factors:

1. Investment quality -Rating of bonds
2. Length of maturity -
    a. Short-term (0-5 years)
    b. Medium (6-15 years)
    c. Long-term (over 15 years)
3. Features of bonds - call or conversion features
4. Tax status
5. Yield to maturity

Bond ratings. The investment quality of a bond is measured by its bond rating which reflects the probability that a bond issue will go into default. The rating should influence your perception of risk and therefore have an impact on the interest rate you are willing to accept, the price you are willing to pay, and the maturity period you are willing to agree to. Bond investors tend to place more emphasis on independent analysis of quality than do common stock investors. Bond analysis and ratings are done, notably, by Moody's Investors Service, Standard & Poor's, Duff & Phelps/MCM, and Fitch Investors Service. Exhibit 1 is an actual listing of the designations used by these well-known independent agencies. Descriptions on ratings are summarized. For original versions of descriptions, see Moody's Bond Record and Standard & Poor's Bond Guide.

Exhibit 1
Description of Bond Ratings

Moody's	*Standard & Poor's*	*Duff&Phelps/MCM*	*Fitch*	*Quality Indication*
Aaa	AAA	AAA	AAA	Highest quality
Aa	AA	AA	AA	High quality
A	A	A	A	Upper medium grade
Baa	BBB	BBB	BBB	Medium grade
Ba	BB	BB	BB	Contains speculative elements
B	B	B	B	Outright speculative
Caa	CCC & CC	CCC	CCC&CC	Default definitely possible
Ca	C		C	Default, only partial recovery likely
C	D		D	Default, little recovery likely
	r			Assigned to derivative products.

*Ratings may also have + or - sign to show relative standings in class.

You should pay careful attention to ratings since they can affect not only potential market behavior but relative yields as well. Specifically, the higher the rating, the lower the yield of a bond, other things being equal. It should be noted that the ratings do change over time and the rating agencies have "credit watch lists" of various types. See if you can select only those bonds rated Baa or above by Moody's or BBB or above by Standard & Poor's, even though doing so means giving up about 3/4 of a percentage point in yield.

Maturity. In addition to the ratings, you can control the risk element through the maturities you select. The maturity indicates how much you stand to lose if interest rates rise. The longer a bond's maturity, the more volatile its price. There is a trade-off: Shorter maturities usually mean lower yields. If you are a conservative investor, select bonds with maturities no further out than 10 years. The longer the maturity of a bond, the greater the bond price is susceptible to changing interest rates.

Features. Check to see whether a bond has a call provision, which allows the issuing company to redeem its bonds after a certain date if it chooses to, rather than at maturity. You are generally paid a small premium over par if an issue is called but not as much as you would have received if you had been able to hold the bond until maturity. Bonds are usually called only if their interest rates are higher than the going market rate. Try to avoid bonds of companies that have a call provision and may be involved in "event risk" (mergers and acquisitions, leveraged buyouts, etc.)

Also check to see if a bond has a convertible feature. Convertible bonds can be converted into common stock at a later date. They provide fixed income in the form of interest. You can also benefit from the appreciation value of common stock. Note: If you have only a small amount to invest or would like to have someone else make the selection, you can buy shares in one of the bond mutual funds. (See Chapter 16 for more about mutual funds).

Tax status. If you are in a high tax bracket, you may want to consider tax-exempt bonds. Most municipal bonds are rated A or above, making them a good grade risk. They can also be bought in mutual funds.

Yield to maturity. Yield has a lot to do with the rating of a bond. The calculation of yield is taken up later. A bond may be bought at a discount (below face value) when:

1. There is a long maturity period.
2. It is a risky company.
3. The interest rate on the bond is less than the "current market interest rate."

A bond may be bought at a premium when the aforementioned circumstances are opposite.

Determining Interest Rate Risk

Interest-rate risk can be determined in two ways. One way is to look at the term structure of a debt security by measuring its average term to maturity— a duration. The other way is to measure the sensitivity of changes in a debt security's price associated with changes in its yield to maturity. We will discuss one such approach: Macaulay's duration coefficient.

MACAULAY's DURATION COEFFICIENT

Macaulay's duration (D) is an attempt to measure risk in a bond by considering the maturity and the time pattern of cash inflows (i.e., interest payments and principal). It is defined as the number of years until a bond pays back its principal. A simple example below illustrates the duration calculations. For example, a bond pays a 7 percent coupon rate annually on its $1,000 face value, if it has 3 years until its maturity and has a YTM of 6 percent. The computation of duration involves the following three steps:

Step 1: Calculate the present value of the bond for each year.
Step 2: Express present values as proportions of the price of the bond.
Step 3: Multiply proportions by years' digits to obtain the weighted average time.

			(Step 1)	(Step 2)	(Step 3)
(1)	(2)	(3)	(4)	(5)	(6)
Year	Cash Flow	PV Factor @ 6%	PV of Cash Flow	PV as Proportion of Bond Price	Column (1) X Column (5)
1	$70	.9434	$66.04	.0643	.0643
2	70	.8900	62.30	.0607	.1214
3	1,070	.8396	898.37	.8750	2.6250
			$1,026.71	1.0000	2.8107

This 3-year bond's duration is a little over 2.8 years. Although duration is expressed in years, think of it as a percentage change. Thus, 2.8 years means this particular bond will gain (lose) 2.8 percent of its value for each 1 percentage drop (rise) in interest rates.

Note:

(1) In all cases, a bond's duration is less than or equal to its term to maturity. Only a pure discount bond--that is, one with no coupon or sinking-fund payments – has duration equal to the maturity.

(2) The higher the D value, the greater the interest rate risk, since it implies a longer recovery period.

(3) Duration will not tell you anything about the credit quality or yield of your bonds, although some bonds (or bond funds) manage to produce top returns without undue risk. For example, Harbor Bond Fund has returned a respectable return -an annualized 11.5 percent over the past five years. Yet its duration is a middle-of-the-road 5.3 years.

Reading a Bond Quotation

To see how bond quotations are frequently presented, let us look at the data for an IBM bond.

Bonds	Cur Yld	Vol	High	Low	Net Close	Chg
IBM 9 3/8 04	11	169	84 5/8	84	84	-1 1/8

The column numbers immediately following the company name gives the bond coupon rate and maturity date. This particular bond carries a 9.375 percent interest rate and matures in 2004. The next column, labeled "cur yld," provides the current yield calculated by dividing the annual interest income (9 3/8 percent) by the current market price of the bond (a closing price of 84). Thus, the current yield for the IBM bond is 11 percent. This figure represents the effective, or real, rate of return on the current market price represented by the bond's interest earnings. The "vol" column indicates the number of bonds traded on the given day (i.e., 169 bonds).

The market price of a bond is usually expressed as a percent of its par (face) value, which is customarily $1,000. Corporate bonds are quoted to the nearest one-eighth of a percent, and a quote of 84 5/8 in the above indicates a price of $846.25 or 84 5/8 percent of $1,000. U.S. government bonds are highly marketable and deal in keenly competitive markets so they are quoted in thirty-seconds or sixty-fourths rather than eighths.

Moreover, decimals are used, rather than fractions, in quoting prices. For example, a quotation of 106.17 for a treasury bond indicates a price of $1,065.31 [$1,060 + (17/32 x $10)]. When a plus sign follows the quotation, the Treasury bond is being quoted in a sixty-fourth. We must double the number following the decimal point and add one to determine the fraction of $10 represented in the quote. For example, a quote of 95.16+ indicates a price of $955.16 [$950 + (33/64 x $10)].

Government bonds and tax-exempt bonds are quoted as follows:

Government bonds transfer at par, at a premium over par, or at a discount from par. The par value of a bond is normally $1,000. Government notes are quoted with variations at 1/32 of 1% of par, or 1/32 of a point. Treasury bills are quoted with variations of 1/100 of a point.

Government Bonds:

A bid of	*Means:*	*Or:*
98.1	98 + 1/32% of $1,000	$980.3125
98.9	98 + 9/32% of $1,000	$982.8125
98.12	98 + 12/32% of $1,000	$983.7500

Tax-exempt Bonds:

1 *Agency*	*2* *Coupon*	*3* *Mat Date*	*4* *Bid*	*5* *Ask*	*6* *Change*	*7* *Yield*
Jacksonville Electric	10 ½	Jan. 21	62	65	2	3.11

1. Agency issuing bond
2. Coupon rate
3. Maturity date of bond
4. Bid price — sell price
5. Ask price—buy price
6. Change from ending value on prior day
7. Current percentage yield on current price

Bond Trading Online

Bond trading is now offered by numerous e-brokers. And many other Web sites provide prices and other bond-specific data that used to be unavailable to the public. Due to the fact that bond trading must take into account many wrinkles such as yield, maturity, credit quality, and call provisions as well as price, bond trading on line has lagged behind stock trading. Exhibit 2 presents some of the best bond-trading Web sites.

Exhibit 2
Bond-Trading Websites

E-broker	Web Address	Minimum Account
Fidelity	www.fidelity.com	$2,500
Merrill Lynch	www.merrilledge.com	$2,000
E*Trade	www.etrade.com	$1,000
Charles Schwab	www.schwab.com	$5,000

Note: Some of the sites allow you to search for bonds in a format similar to a stock-screening page.

Calculating Yield (Effective Rate of Return) on a Bond

Bonds are evaluated on many different types of returns including current yield and yield to maturity (YTM).

Current yield: The current yield is the annual interest payment divided by the current price of the bond. The current yield is reported in the Wall Street Journal, among others.

EXAMPLE 1

Assume a 12 percent coupon rate on a $1,000 par value bond selling for $960. The current yield is $120/$960 = 12.5%

The problem with this measure of return is that it does not take into account the maturity date of the bond. A bond with 1 year to run and another with 15 years to run would have the same current yield quote if interest payments were $120 and the price was $960. Clearly, the one year bond would be preferable under this circumstance because you would not only get $120 in interest, but also a gain of $40 ($1000 - $960) with a one-year time period, and this amount could be reinvested.

Yield to maturity: The yield to maturity takes into account the maturity date of the bond. It is the real return to be received from interest income plus capital gain assuming the bond is held to maturity. There are two ways to calculate this measure: the exact method and the approximate method.

<u>The exact method:</u>

Under the exact method, a bond's yield to maturity is the internal rate of return on investment in the bond. It is calculated by solving the bond valuation model for r:

$$V = \sum_{t=1}^{n} \frac{I}{(1+r)^t} + \frac{M}{(1+r)^n} = I \cdot T2(r,n) + M \cdot T1(r,n)$$

where V is the market price of the bond, I is the interest payment, and M is the maturity value, usually $1,000. T2 and T1 are found in Tables 2 and 1, respectively in the Appendix.

Finding the bond's yield r, involves trial and error. It is best explained by an example.

EXAMPLE 2

Suppose you are offered a 10-year, 8 percent coupon, $1,000 par value bond at a price of $877.60. The rate of return earned if the bond is bought and held to maturity is computed below.

First, set up the bond valuation model:

$$= \sum_{t=1}^{10} \frac{\$80}{(1+0.1)^t} + \frac{\$1,000}{(1+0.1)^{10}}$$

$$= \$80 \cdot T2(10\%,10) + \$1,000 \cdot T1(10\%,10)$$

$$= \$80(6.145) + \$1,000(0.386)$$

$$= \$491.60 + 386.00$$

$$= \$877.60$$

Because the bond is selling at a discount, the bond's yield is above the going coupon rate of 8 percent. Therefore, try a rate of 9 percent. Substituting factors for 9 percent in the equation, we obtain: V = \$80(6.418) + \$1,000(0.422) = \$513.44 + \$422.0 = \$935.44. The calculated bond value, \$935.44, is above the actual market price of \$877.60, so the yield is not 9 percent. To lower the calculated value, the rate must be raised. Trying 10 percent, we obtain: V = \$80(6.145) + \$1,000(0.386) = \$491.60 + \$386.00 = \$877.60. This calculated value is exactly equal to the market price of the bond; thus, 10 percent is the bond's yield to maturity.

<u>The approximate method:</u>

$$\text{Yield} = \frac{I + (M - V)/n}{(M + V)/2}$$

where V=the market value of the bond, I=dollars of interest paid per year, M=maturity value, usually \$1,000, and n=number of years to maturity

EXAMPLE 3

Using the same data in Example 2, Yield =

$$\frac{\$80 + (\$1{,}000 - \$877.60)/10}{(\$1{,}000 + \$877.60)/2} = \frac{\$80 + \$12.24}{\$938.80} = \frac{\$92.24}{\$938.80}$$

=9.8%

which came out very close to 10 percent.

Equivalent taxable yield (taxable equivalent yield): Yield on a tax-exempt municipal bond needs to be looked at on an equivalent before-tax yield basis, because the interest received is not subject to federal income taxes. The formula used to equate interest on municipals to other investments is:

Equivalent taxable yield = Tax-exempt yield/ (1 - tax rate)

EXAMPLE 4

If you have a marginal tax rate of 28 percent and are evaluating a municipal bond paying 10 percent interest, the equivalent before-tax yield on a taxable investment would be:

10%/(1 - .28) = 13.89%

Thus, you could choose between a taxable investment paying 13.89% percent and a tax-exempt bond paying 10 percent and be indifferent between the two.

Exhibit 3 shows how a taxable bond (like a corporate bond) would have to yield in order to equal the yield of a tax-free bond (like a municipal bond).

Exhibit 3
Table of Taxable Equivalent Yields

To Match a Tax-Free Yield of

Tax Bracket	5%	6%	7%	8%	9%	10%
	You must earn this yield on a taxable investment:					
15%	5.88	7.06	8.24	9.41	10.59	11.76
28	6.94	8.33	9.72	11.11	12.50	13.89
31	7.25	8.70	10.15	11.59	13.04	14.49
36	7.81	9.38	10.94	12.50	14.06	15.63
39.6	8.28	9.93	11.59	13.25	14.90	16.56

Preferred Stock

Preferred stock carries a fixed dividend that is paid quarterly. The dividend is stated in dollar terms per share, or as a percentage of par (stated) value of the stock. Preferred stock is considered a hybrid security because it possesses features of both common stock and a corporate bond. It is like common stock in that:

- It represents equity ownership and is issued without stated maturity dates.
- It pays dividends.

Preferred stock is also like a corporate bond in that:

- It provides for prior claims on earnings and assets.
- Its dividend is fixed for the life of the issue;
- It can carry call and convertible features and sinking fund provisions.

Since preferred stocks are traded on the basis of the yield offered to investors, they are viewed as fixed income securities and, as a result, are in competition with bonds in the marketplace. Corporate bonds, however, occupy a position senior to preferred stocks.

Advantages of owning preferred stocks include:

- Their high current income, which is highly predictable.
- Safety.
- Lower unit cost ($10 to $25 per share).

Disadvantages are:

- Their susceptibility to inflation and high interest rates.
- They lack substantial capital gains potential.

Most preferred stock is cumulative. Cumulative preferred stock requires any dividends in arrears that have not been paid in prior years to be paid before common stockholders can receive their dividends. Exhibit 4 presents major features of preferred stock.

Exhibit 4
Characteristics of Preferred Stock

Voting rights	No unless dividend not paid
Income	Fixed as long as dividend paid
Capital gain/loss potential	Only if interest rates change or company's preferred stock rating changes
Inflation hedge	No except for adjustable
Preemptive right	No
Priority of claim	Prior to common stock

Preferred Stock Ratings

Like bond ratings, Standard & Poor's and Moody's have long rated the investment quality of preferred stocks. S&P uses basically the same rating system as they do with bonds, except that triple A ratings are not given to preferred stocks. Moody's uses a slightly different system, which is given below. These ratings are intended to provide an indication of the quality of the issue and are based largely on an assessment of the firm's ability to pay preferred dividends in a prompt and timely fashion. Note: Preferred stock ratings should not be compared with bond ratings as they are not equivalent.

Standard & Poor’s	Quality Indication
*	Highest quality
AA	High quality
A	Upper medium grade
BBB	Medium grade
BB	Contains speculative elements
B	Outright speculative
CCC & CC	Default definitely possible
C	Default, only partial recovery likely
D	Default, little recovery likely

*Triple A rating is not given.

Moody’s	Quality Indication
aaa	Top quality
aa	High grade
a	Upper medium grade
baa	Lower medium grade
ba	Speculative type
b	Little assurance of future dividends
caa	Likely to be already in arrears

Calculating Expected Return from Preferred Stock

The expected return from preferred stock is calculated in the same way as the expected return on bonds. Since preferred stock usually has no maturity date when the company must redeem it, you cannot calculate a yield to maturity. You can calculate a current yield as follows:

$$\text{Current yield} = D/P$$

where D=annual dividend, and P=the market price of the preferred stock.

EXAMPLE 5

A preferred stock paying $4.00 a year in dividends and having a market price of $25 would have current yield of 16% ($4/$25).

Preferred Stock Quotations

If preferred stocks are listed on the organized exchanges, they are reported in the same sections as common stocks. The symbol "pf" appears after the name of the corporation, designating the issue as preferred. Preferred stocks are read the same way as common stock quotations. The issues are listed in Moody's Bond Record.

Other Fixed Income Securities – “Short Term Parking Lots”

Besides bonds and preferred stock, there are other significant forms of debt instruments from which you may choose, and they are primarily short-term in nature. You may treat them as "parking lots" until you decide what the next investment should be.

- **Certificates of deposit (CDs).** These safe instruments are issued by commercial banks and thrift institutions and have traditionally been in amounts of $10,000 or $100,000 (jumbo CDs). You can invest in a CD for much less (e.g., $2,000, $5,000). CDs have a fixed maturity period varying from several months to many years. Warning: There is a penalty for cashing in the certificate prior to the maturity date.

- **Commercial paper**. Commercial paper is issued by large corporations to the public. Unfortunately, it usually comes in minimum denominations of $25,000. It represents an unsecured promissory note. It usually carries a higher yield than small CDs. The maturity is usually 30, 60, and 90 days. The degree of risk depends on the company's credit rating.
- **Treasury bills**. Treasury bills have a maximum maturity of one year and common maturities of 91 and 182 days. They trade in minimum units of $10,000. They do not pay interest in the traditional sense; they are sold at a discount, and they are redeemed when the maturity date comes around, at face value. T-bills are extremely liquid in that there is an active secondary or resale market for these securities. T-bills have an extremely low risk because they are backed by the U.S. government.

Yields on discount securities such as T-bills are calculated using the formula:

$$\frac{P1 - P0}{P0} \text{ x } \frac{52}{n}$$

where P1=redemption price, P0=purchase price, and n=maturity in weeks

EXAMPLE 6

Assume that P1=$10,000, P0=$9,800, and n=13 weeks. The T-bill yield is:

$$\frac{\$10{,}000 - \$9{,}800}{\$9{,}800} \text{ x } \frac{52}{13} = \frac{\$200}{\$9{,}800} \text{ x } 4 = .0816 = 8.16\%$$

- **Money market funds**. Money market funds are special forms of mutual funds. You can own a portfolio of high-yielding CDs, T-bills, and other similar securities of short-term nature, with a small amount. There is a great deal of liquidity and flexibility in withdrawing funds through check-writing privileges (the usual minimum withdrawal is $500). Money market funds are considered very conservative, because most of the securities purchased by the funds are quite safe. For more about money market funds, refer to Chapter 16 (Mutual Funds and Diversification).

Conclusion

Fixed income securities such as bonds and preferred stocks have a twofold appeal to investors: They are usually safer than equity securities, such as common stocks, and they typically generate a higher current return. It is important to realize that yields and prices of bonds can be just as volatile as common stock prices, and almost as risky. Bonds are subject to default risk, interest rate risk, and inflation risk. Preferred stock is a hybrid security, since it has features of both common stock and bonds. Investing in fixed income securities requires an understanding of quality ratings and risks associated with the securities.

Websites for bond investing

www.investinginbonds.com

www.bondsonline.com

Instant access to and extensive coverage of over 3.5 million stocks, bonds, indexes and other securities covering major and emerging markets and exchanges across the globe.

Chapter 14 Review Questions

1. An investor is currently holding income bonds, debentures, subordinated debentures, first-mortgage bonds, and floating rate notes. Which of these securities traditionally is considered to have the least risk?

A. Income bonds.
B. Mortgage bonds.
C. Debentures.
D. Subordinated debentures.

2. Debentures are

A. Income bonds that require interest payments only when earnings permit.
B. Subordinated debt and rank behind convertible bonds.
C. Bonds secured by the full faith and credit of the issuing firm.
D. Mortgage bonds secured by a lien on specific assets of the firm.

3. Zero-coupon bonds issued by corporations:

A. Are initially sold at par value (a zero discount).
B. Require no cash outlay from the issuer until the bonds mature.
C. Are initially sold for a price above par value.
D. Are tax free.

4. Junk bonds are

A. Securities rated at less than investment grade.
B. Worthless securities.
C. Securities that are highly risky but offer only low yields.
D. Related only to issues of "fallen angel" companies whose securities have been downgraded.

5. Which one of the following characteristics distinguishes income bonds from other bonds?

A. The bondholder is guaranteed an income over the life of the security.
B. Income bonds pay interest only if the issuing company has earned the interest.

C. By promising a return to the bondholder, an income bond is junior to preferred and common stock.
D. Income bonds are junior to subordinated debt but senior to preferred and common stock.

6. Serial bonds are attractive to investors because

A. All bonds in the issue mature on the same date.
B. Investors can choose the maturity that suits their financial needs.
C. The yield to maturity is the same for all bonds in the issue.
D. The coupon rate on these bonds is adjusted to the maturity date.

7. The best advantage of a zero-coupon bond to the issuer is that the

A. Bond requires a low issuance cost.
B. Interest can be amortized annually on a straight-line basis but is a noncash outlay.
C. Bond requires no interest income calculation to the holder or issuer until maturity.
D. Interest can be amortized annually by the APR method and need not be shown as an interest expense to the issuer.

8. Moody's and Standard & Poor's debt ratings depend on

A. The size of the company.
B. The size and the type of issue.
C. The firm's industry.
D. The chances of default.

9. If a bond is rated below BBB, it is called

A. A junk bond.
B. A zero-coupon bond.
C. An investment grade bond.
D. An income bond.

10. A company has purchased a $1,000, 7%, 5-year bond at par that pays interest annually. The discount factors for the present value of $1 at 7% for five periods are as follows: period 1 = .935; period 2 = .873; period 3 = .816; period 4 = .763; period 5 = .713. The duration of the bond is

A. years.
B. years.
C. years.
D. years.

11. From the viewpoint of the conservative investor, which of the following securities provides the highest risk?

A. Subordinated debenture.
B. Junk bond.
C. Municipal bond.
D. Debentures.

12. Preferred shares are securities with characteristics of both common shares and bonds. Preferred shares have what like common shares and what like bonds?

A. A maturity date like common shares, and a fixed periodic payment like bonds.
B. No maturity date like common shares, and a fixed periodic payment like bonds.
C. No maturity date like common shares, and no fixed periodic payment like bonds.
D. A maturity date like common shares, and no fixed periodic payment like bonds.

13. Preferred and common stock differ in that

A. Failure to pay dividends on common stock will not force the firm into bankruptcy while failure to pay dividends on preferred stock will force the firm into bankruptcy.
B. Common stock dividends are a fixed amount while preferred stock dividends are not.
C. Preferred stock dividends are deductible as an expense for tax purposes while common stock dividends are not.
D. Preferred stock has a higher priority than common stock with regard to earnings and assets in the event of bankruptcy.

14. Which one of the following statements is correct regarding the effect of preferred stock has on a company?

A. The firm's after-tax profits are shared equally by common and preferred shareholders.
B. Preferred shareholders' claims take precedence over the claims of common shareholders in the event of liquidation.
C. Control of the firm is now shared by the common and preferred shareholders, with preferred shareholders having greater control.
D. Nonpayment of preferred dividends places the firm in default, as does nonpayment of interest on debt.

15. Clinton Airline has preferred stock that pays an annual dividend of $4.75 per share. If investors require an 11% rate of return on investment, what should be the price of the preferred stock?

A. $52.25
B. $43.18
C. $50.00
D. $47.93

Chapter 14 Review Answers

1. An investor is currently holding income bonds, debentures, subordinated debentures, first-mortgage bonds, and floating rate notes. Which of these securities traditionally is considered to have the least risk?

A. Incorrect. Income bonds pay interest only if interest is earned.
B. **Correct.** A mortgage bond is secured with specific fixed assets, usually real property. Thus, under the rights enumerated in the bond indenture, creditors will be able to receive payments from liquidation of the property in case of default. In a bankruptcy proceeding, these amounts are paid before any transfers are made to other creditors, including those preferences. Hence, mortgage bonds are less risky than the others listed.
C. Incorrect. Debentures are unsecured bonds.
D. Incorrect. Subordinated debentures are subordinated to other debt.

2. Debentures are

A. Incorrect. Debentures must pay interest regardless of earnings levels.
B. Incorrect. Debentures are not subordinated except to the extent of assets mortgaged against other bond issues. Debentures are a general obligation of the borrower and rank equally with convertible bonds.
C. **Correct.** Debentures are unsecured bonds. Although no assets are mortgaged as security for the bonds, debentures are secured by the full faith and credit of the issuing firm. Debentures are a general obligation of the borrower. Only companies with the best credit ratings can issue debentures because only the company's credit rating and reputation secure the bonds.
D. Incorrect. Debentures are not secured by mortgages on specific assets.

3. Zero-coupon bonds issued by corporations

A. Incorrect. Zero-coupon bonds are sold at a discount.
B. **Correct.** Zero-coupon bonds pay no interest but sell at a deep discount from their face value. A relatively new type of bond, these instruments are very useful to both investors and investees. The need to reinvest the interest on normal coupon bonds renders the final return uncertain because future reinvestment rates are uncertain. With zero-coupon bonds, the investor knows exactly the return (s)he will earn. Investors might therefore be willing to pay a premium for them, which in turn might lead firms to issue them. No interest payments means the firm faces no additional insolvency risk from the issue until it matures.
C. Incorrect. Zero coupon bonds are sold for a price below par value.
D. Incorrect. Zero coupon bonds are subject to taxes.

4. Junk bonds are

A. **Correct.** Junk bonds are high risk and therefore high-yield securities that are normally issued when the debt ratio is very high. Thus, the bondholders have as much risk as the holders of equity securities. Such bonds are not highly rated by credit evaluation companies. Junk bonds have become accepted because of the tax deductibility of the interest paid.
B. Incorrect. Junk bonds are not yet worthless; they simply bear high interest rates and high risk.
C. Incorrect. Junk bonds typically offer high yields.
D. Incorrect. Junk bonds are not ones that have been downgraded; they were never high grade.

5. Which one of the following characteristics distinguishes income bonds from other bonds?

A. Incorrect. Bondholders will receive an income only if the issuing company earns sufficient income to pay the interest.
B. **Correct.** An income bond is one that pays interest only if the issuing company has earned the interest, although the principal must still be paid on the due date. Such bonds are riskier than normal bonds.
C. Incorrect. All bonds have priority over preferred and common stock.
D. Incorrect. Subordinated debt is junior to nonsubordinated debt.

6. Serial bonds are attractive to investors because

A. Incorrect. Serial bonds mature on different dates.
B. **Correct.** Serial bonds have staggered maturities; that is, they mature over a period (series) of years. Thus, investors can choose the maturity date that meets their investment needs. For example, an investor who will have a child starting college in 16 years can choose bonds that mature in 16 years.
C. Incorrect. Bonds maturing on different dates may have different yields, or they may be the same. Usually, the earlier date maturities carry slightly lower yields than the later maturities.
D. Incorrect. The coupon rate is the same for all bonds; only the selling price and yield differ.

7. The best advantage of a zero-coupon bond to the issuer is that the

A. Incorrect. The issuance costs are no lower than for any other bond issue.
B. **Correct.** Zero-coupon bonds do not pay periodic interest. The bonds are sold at a discount from their face value, and the investors do not receive interest until the bonds mature. The issuer

does not have to make annual cash outlays for interest. However, the discount must be amortized annually and reported as interest expense.

C. Incorrect. Interest income and expense must be calculated annually based on the amount of the initial discount that is amortized.
D. Incorrect. The annual amortization must be shown as interest expense. APR means "annual percentage rate."

8. Moody's and Standard & Poor's debt ratings depend on

A. Incorrect. The size of the company is relevant only insofar as it bears upon the probability of default.
B. Incorrect. The size and the type of issue are relevant only insofar as they bear upon the probability of default.
C. Incorrect. The firm's industry is relevant only insofar as it bears upon the probability of default.
D. **Correct.** Debt ratings are based on the probability of default and the protection for investors in case of default.

9. If a bond is rated below BBB, it is called

A. **Correct.** AAA and AA are Standard & Poor's highest ratings. They signify the highest quality. Bonds rated A and BBB are investment grade. Bonds rated below BBB are speculative high-yield or low-grade bonds (junk bonds).
B. Incorrect. A zero-coupon bond pays no interest and is sold at a discount.
C. Incorrect. An investment grade bond is rated A or BBB.
D. Incorrect. An income bond pays interest only if the issuer earns income sufficient to pay the interest.

10. A company has purchased a $1,000, 7%, 5-year bond at par that pays interest annually. The discount factors for the present value of $1 at 7% for five periods are as follows: period 1 = .935; period 2 = .873; period 3 = .816; period 4 = .763; period 5 = .713. The duration of the bond is

A. Incorrect. 5.39 years results from adding $1,000 to the numerator of the calculation.
B. **Correct.** Duration is the weighted average of the times to interest and principal payments. If duration increases, the volatility of the price of the debt instrument increases. Duration is lower if the nominal rate on the instrument is higher because more of the return is received earlier. The weighted present values of the payments can be calculated as follows: $65.45 (7% x $1,000 x 1 period x .935), $122.22 (7% x $1,000 x 2 periods x .873), $171.36 (7% x $1,000 x 3 periods x .816), $213.64 (7% x $1,000 x 4 periods x .763), and $3,814.55 (107% x $1,000 x 5 periods x

.713). The total is $4,387.22. The value of the bond is $1,000 {[$70 x (.935 + .873 + .816 + .763 + .713)] + ($1,000 x .713)}. Thus, the duration is approximately 4.39 years ($4,387.22 ÷ $1,000).

C. Incorrect. 5.00 years is the term of the bond.

D. Incorrect. 3.81 years equals the weighted present value of the final payment divided by $1,000.

11. From the viewpoint of the conservative investor, which of the following securities provides the highest risk?

A. Incorrect. A debenture is long-term debt that is not secured (collateralized) by specific property. Subordinated debentures have a claim on the debtor's assets that may be satisfied only after senior debt has been paid in full. Debentures of either kind are therefore more risky than income bonds.

B. **Correct.** Junk bonds are bonds with a speculative credit rating of BB or lower by Moody's and Standard & Poor's rating systems. They are issued by companies without track records of sales and earnings and are therefore risky for conservative investors. Since junk bonds are known for their high yields, many risk-oriented investors specialize in trading them.

C. Incorrect. Municipal bonds are tax-exempt bonds. They are not secured but backed by the credit rating of the municipality.

D. Incorrect. A debenture is long-term debt that is not secured (collateralized) by specific property. Unsecured debt is riskier than a secured bond.

12. Preferred shares are securities with characteristics of both common shares and bonds. Preferred shares have what like common shares and what like bonds?

A. Incorrect. Preferred shares do not have a maturity date.

B. **Correct.** Like common shares (but unlike bonds), preferred shares have no maturity date, although certain preferred shares (transient preferred shares) must be redeemed within a short time (e.g., 5 to 10 years). Like bonds (but unlike common shares), preferred shares have a fixed periodic payment. The fixed payment is in the form of a stated dividend in the case of the preferred shares and interest payments in the case of bonds. However, preferred dividends, unlike interest, do not become an obligation unless declared.

C. Incorrect. Preferred shares have fixed periodic dividend payments.

D. Incorrect. Preferred shares do not have a maturity date but do have fixed periodic dividend payments.

13. Preferred and common stock differ in that

A. Incorrect. Failure to pay dividends will not force the firm into bankruptcy, whether the dividends are for common or preferred stock. Only failure to pay interest will force the firm into bankruptcy.
B. Incorrect. Preferred dividends are fixed.
C. Incorrect. Neither common nor preferred dividends are tax deductible.
D. **Correct.** In the event of bankruptcy, the claims of preferred shareholders must be satisfied before common shareholders receive anything. The interests of common shareholders are secondary to those of all other claimants.

14. Which one of the following statements is correct regarding the effect of preferred stock has on a company?

A. Incorrect. The share of profits available to preferred stockholders is normally limited to a percentage of the stock's par value. Thus, they may get more or less than the common shareholders.
B. **Correct.** Preferred stockholders have preference over common stockholders with respect to dividend and liquidation rights, but payment of preferred dividends, unlike bond interest is not mandatory. In exchange for these preferences, the preferred stockholders give up the right to vote. Consequently, preferred stock is a hybrid of debt and equity.
C. Incorrect. Preferred stockholders ordinarily do not have voting rights.
D. Incorrect. The passing of preferred dividends does not put the corporation into default. For this reason, preferred stock is sometimes viewed more favorably than debt by corporate management. If the preferred stock is cumulative (which most is), the corporation may not pay dividends to common shareholders until the arrearages to preferred stockholders have been paid.

15. Clinton Airline has preferred stock that pays an annual dividend of $4.75 per share. If investors require an 11% rate of return on investment, what should be the price of the preferred stock?

A. Incorrect. $52.25 involves multiplication by 11 rather than division by .11.
B. **Correct.** If $4.75 represents an 11% return, divide $4.75 by .11 to get the stock price of $43.18.
C. Incorrect. 11% of $50 is not $4.75.
D. Incorrect. $47.93 results from adding the $4.75 to the calculated price.

Chapter 15:

Investing in Tangibles – Real Estate and Other Real Assets

Learning Objectives

After reading this chapter you will be able to:

- List the pros and cons of investing in real estate.
- Identify the types of real estate investments.
- Weight factors to be considered regarding a real estate investment.
- Value an income-producing property.
- Explain each of indirect real estate vehicles such as real estate investment trusts (REITs), limited partnerships (syndicates), and mortgage-backed investments.

Investing in tangibles such as real estate, precious metals, and collectibles is considered an inflation hedge. Real estate investing still provides some tax shelters to many investors. In this chapter, you will learn about:

- Advantages and pitfalls of real estate investing.
- Determination of after-tax cash flow.
- How to value an income producing property.
- Other forms of real estate investing such as Real Estate Investment Trusts (REITs), limited partnerships, and mortgage-backed securities.
- How to use leverage and increase return.
- Basics about precious metals.

Real Estate

Investing in Real Estate in an I.D.E.A.L. Situation

It has often been said that real estate is the I.D.E.A.L. investment. Each of the five letters in IDEAL stands for an advantage to real estate as an investment.

- "I" stands for *interest deduction*. ("I" could mean inflation hedge or income tax benefits). The mortgage interest paid on the first and second residential homes are tax deductible. On the average, real estate is a good hedge against inflation because property values and the income from properties rise to keep pace with inflation.
- "D" stands for *depreciation*. The building on your land depreciates in book value each year and you can deduct this depreciation from your gross income. This is only true for investment property and not residential.
- "E" is for *equity buildup*. This buildup of a capital asset is like money in the bank. As you amortize a mortgage, the value of your equity investment will steadily rise. In the case of income-producing property, this amortization could mean that your tenants help you build your estate.
- "A" is for *appreciation*. Your property value goes up every year, hopefully. Be careful because this is not guaranteed.
- “L" is for *leverage*. When you buy a house you make a down payment, say, 10 percent and you borrow the balance, say, 90 percent. You get the benefit of all 100 percent even though you put up only 10 percent of your own money. You can maximize return with other people's money (OPM). The use of mortgage and OPM means that you can use small amounts of cash to gain control of large investments and earn large returns on the cash invested.

Besides I.D.E.A.L., you could add the following advantages of investing in real estate:

- Tax-free refinancing. Mortgage proceeds even from refinancing are not taxable income to you. Therefore, refinancing is a way to recover your cash investment and, in some cases, your profit tax free.
- Pride of ownership. You may find greater personal satisfaction in owning property than stock certificates.
- Investment and consumption. Certain types of real estate, such as land and vacation homes, can serve both as investments and as sources of pleasure.

Disadvantages of Real Estate

Real estate investing is not free from problems. Watch out for the following:

- High transaction costs, such as brokerage commissions and closing expenses. These costs eat up short-term profits. Warning: If you might need your money out in a hurry, do not invest in real estate.

- Negative cash flow with little down (too much leverage). In jargon, we call it an alligator.
- Balloon payment due. The balloon payment is the unpaid balance of a mortgage loan that is paid off in a lump sum at the end of the loan term. This is typically a large amount. You may be unable to make the final payment, and thus lose your property.
- Limited marketability. Lack of a central market or exchange to make real estate investments more liquid.
- Management headache, such as unreliable tenants, or otherwise high professional management fees.

How to Enhance the Value of Real Estate

You may enhance the value of real estate in the following ways:

- Buying below market.
- Making cosmetic improvements.
- Beneficial zoning changes.
- Making financing available.
- Rent increases in multi-family units.
- Subdividing property.

However, watch out for get-rich-schemes lacking economic reality. A beginning investor in real estate should keep the following in mind:

- Buy a property you can easily manage.
- Buy a property at a price you can afford.
- Select a good location, particularly an "emerging" attractive area.
- Buy a residential property containing from one to four units. A single unit, such as a single family house, is generally preferable.
- If you're going to buy a property needing work, make sure it has "curable" problems that could be solved at a cost below the increment in value.
- Try to buy a property that will generate revenue to cover your annual cash outlay.
- Buy a property that is in good condition.

Rule of thumb: Since real estate is typically not a liquid investment, you should maintain at least 3 months' income or 3 months' living expenses in liquid funds as a precaution in the event that an emergency develops.

Types of Real Estate Investments

The different kinds of real estate you can invest include:

- Undeveloped land
- Residential rental property (e.g., single family houses for rental, and multi-unit apartments)

- Commercial property (e.g., office buildings, shopping centers, and industrial property)
- Real Estate Investment Trusts (REITs)

Factors to Consider Regarding a Real Estate Investment

- Location
- Method of financing the purchase of the property
- Before-tax cash flow
- After-tax cash flow
- Vacancy rate for rental property
- Gain or loss for tax purposes

Determining Cash Flow for Real Estate

A necessary task in analyzing an income-producing property is determining the before-tax cash flow. When you know the cash flow, you can figure the return on your investment, calculate the tax shelter, and evaluate the investment. You don't need to be a real estate expert to determine a property's cash flow, common sense and some uncomplicated research will provide you with a base figure.

EXAMPLE 1

John Smith recently calculated the cash flow of a property offered to him for investment. We will go through his analysis, step by step, as an example of the process and format which you can follow. Mr. Smith is considering a duplex apartment. The property is located in an attractive suburb. The cost of the building is $219,000 and a $175,000, 30-year mortgage at 12% fixed rate is anticipated. The projected figures are based on the first full year of operation.

Step 1: Figuring gross income

The building has two three-bedroom apartments. To judge how much the apartments could rent for, Mr. Smith compared his building to ones in the area which were similar in quality of location and construction. He studied advertisements and questioned area real estate brokers. After weighing this information, he decided the three-bedroom could rent for $950. Thus, the total maximum yearly rental income was $22,800.

2 x $950 = $1,900

$1,900 x 12 = $22,800

Additional income of $800 from laundry fees would make the possible total gross income $23,600.

Step 2: Vacancy and credit losses

To estimate the reduction in gross income caused by vacancies and bad debts, Mr. Smith looked at the result of the survey conducted by the local realtors and apartment associations. He estimated that the vacancy and bad debt rate would be 2% of possible gross income or $472 (2% of $23,600). Please refer to Exhibit 1 (Annual Property Operating Data).

Step 3: Operating expenses

For estimates of operating expenses, Mr. Smith carefully examined the record of previous costs by category. He came up with the cost figures as shown in the chart, which are basically the previous costs plus adjustments for inflation.

Step 4: Net operating income

The projected operating expenses totaled $4,510 or 19.50% of gross operating income ($23,128). This left a net operating income (NOI) of $18,618 ($23,128 - $4,510). Now we proceed to calculating before-tax cash flow:

Step 5: Debt service (principal and interest payments)

Payments at 12% on a $175,000, 30-year fixed-rate mortgage would be $1800.08 per month or $21,601 annually (principal amount is $635).

Step 6: Before-tax cash flow

The estimated before-tax cash flow was ($2,983) on an investment of $44,000 ($219,000 - $175,000).

EXHIBIT 1
ANNUAL PROPERTY OPERATING DATA
(12 months – projected)

Gross Scheduled Income			$22,800
+ Other Income			800
Total Gross Income			23,600
- Vacancy/Credit Losses (2%)			472
Gross Operating Income (GOI)			23,128
Operating Expenses (with percent of GOI)			
Property insurance	1.93%	$446	
Real Estate Taxes	13.22%	3,058	
Repairs and Maintenance	1.45%	335	
Sewer and Water	2.90%	671	
Total Operating Expenses (19.50%)			4,510
Net Operating Income (80.50%)			18,618
- Debt Service (Principal and Interest)			21,601
Before-Tax Cash Flow			($2,983)

In order to compute after-tax cash flow, we have to add principal payments and deduct annual depreciation as follows:

Before-Tax Cash Flow		$(2,983)
	Add: Principal	635
	Less: Depreciation	5,575*
Taxable Income (loss)		$(7,923)
Your Income Tax Rate		* .35
Value of Taxable Loss		$2,773

*Assumption: The depreciable base of the building is 70% of $219,000=$153,300. Annual depreciation is therefore $5,575 ($153,300/27.5 years by straight line).

Then your after-tax cash flow is:

Before-Tax Cash Flow		$(2,983)
	Add: Value of Taxable Loss	2,773
After-Tax Cash Flow		$(210)

Note: Due to the deductibility of interest payments and annual depreciation for income tax purposes, after-tax cash flow is reduced by a substantial amount (In this example, after-tax was only -$210 as compared to before-tax of -$2,983. Don't forget: We did not even take into account the potential appreciation of the property. The return on your investment in this building should be calculated on the basis on both annual after-tax cash flows and the selling price of the property at the end of the holding period.

How Do You Value An Income Producing Property?

There are several rule of thumb methods to arrive at the estimated value of an income-producing property. They include:

Gross Income Multiplier. Gross income multiplier is calculated as: Purchase price/gross rental income

EXAMPLE 2

In Mr. Smith's example, the gross income multiplier is: $219,000/$23,600 = 9.28

A duplex in the similar neighborhood may be valued at "8 times annual gross." Thus, if its annual gross rental income amounts to $23,600, the value would be taken as $188,800 (8 x $23,600). Warning: This approach should be used with caution. Different properties have different operating expenses which must be taken into account in determining the value of a property.

Net Income Multiplier. Net income multiplier is calculated as: Purchase price/net operating income (NOI)

In Mr. Smith's example, the net income multiplier is: $219,000 / $18,618 = 11.76

Capitalization rate. Capitalization rate is almost the same as the net income multiplier, only used more often. It is the reciprocal of the net income multiplier. That is:

Net operating income (NOI)/purchase price

EXAMPLE 3

Let us go back to Mr. Smith's example. The duplex's capitalization rate is $18,618/$219,000 = 8.5%. Whether it is over-priced or not depends on the rate of the similar type property derived from the market place. Suppose the market rate is 10%. That means the fair market value of the similar duplex is $18,618/10% =$186,180. Mr. Smith may be overpaying for this property.

Discounted cash flow. This method uses the present value technique under which the asking price or value of a real estate investment is the present worth of the future after-tax cash flows from the investment, discounted at the rate of return required by the investor.

EXAMPLE 4

You require a rate of return of 10 percent on a piece of property advertised for sale at $150,000. You estimate that rents can be increased each year for five years. You expect that after all expenses you would have an after-tax cash flow of $5,000, $5,200, $5,400, $5,600, and $5,800 for each year. You also expect that this property can sell for 200,000 at the end of the fifth year. To determine the amount you would be willing to pay for this property, we can set up the present value table as follows:

Year	After-tax cash flow	Present value of $1 (Table 3 in the Appendix)	Present Value
1	$5,000	.909	$4,545
2	5,200	.826	4,295
3	5,400	.751	4,055
4	5,600	.683	3,825
5	5,800	.621	3,602
Sell property	$200,000	.621	124,200
Present value of property			$144,522

You would be willing to pay $144,522 for this property.

Indirect Real Estate Investments

There are three major types of indirect real estate investments. They are: limited partnerships, real estate investment trusts (REITs), and mortgage-backed securities.

Limited Partnerships

Limited partnerships, now usually referred to as direct investments or private investments, is an investment strategy used for tax benefits. It includes real estate partnerships, oil and gas partnerships, equipment leasing partnerships, cable partnerships, and the like. For example, real estate partnerships are a form of investing in real estate that enables investors to buy into real estate projects too costly for one investor. A group of investors set up each investing money to buy a large project like a shopping mall or an apartment house. There are both general and limited partners. The general manager typically originates and manages the property for compensation. The limited partners invest money and are liable just for that investment. Limited partnerships offer the following benefits:

- Tax deductible expenses.
- Professional management.
- Exemption from the double taxation of distributions faced by a corporate structure. A limited partnership functions as a pass-through agency, so it does not have to pay taxes on the income it receives.

The disadvantages are:

- IRS rulings disallowing certain real estate losses.
- High management charges and costs (typically, 15% to 30%)
- High risk.
- Illiquidity from a lack of secondary market, unlike, for example, real estate investment trusts (REITs). This means you would be likely to lose money, if you wish to sell your interest before it liquidates its assets. Note: In recent years, a new securities market has emerged--the limited partnership secondary market. This new market offers a long-term benefit to limited partnership investors. Secondary market liquidity softens what has perhaps been the principal negative of limited partnership investing--the long-term illiquid nature of the security.

Information on the limited partnership secondary market includes:

1. Partnership Profiles [P.O. Box 7938, Dallas, Texas 75209; (817) 488-6115] provides quarterly research reports on actively traded partnerships. In addition, The Perspective, a newsletter, carries news and analysis of the partnership market including secondary market trading prices.

2. The Stanger Report: A Guide to Partnership Investing [Robert A. Stanger & Company, 1129 Broad Street, Shrewsbury, N.J. 07702-4790; (908) 389-3600] provides review articles on the partnership

market, listings of partnerships traded in the secondary market, as well as listings of new issue partnerships currently being marketed.

Real Estate Investment Trusts (REITS)

REITs is another form of real estate investing. REITs are companies similar to *closed-end mutual funds*. REITs invest investor's money in diversified real estate or mortgage portfolios rather than stocks or bonds. REITs are traded on the stock exchanges and over-the-counter market.

To continue their tax exempt status, REITs must distribute 95 percent of their profit to shareholders, and in turn they are exempt from corporate taxes on income or gains.

Are REITs Yields Attractive?

Yields might be high because there is no corporate tax on earnings, so it all flows to shareholders.

What Kinds of REITs Are There?

Three types of REITs exist: Equity REITs concentrate on income producing properties; mortgage REITs lend to developers and builders; and hybrid REITs do both. Equity REITs are the safest; but, their total returns are the lower than the others.

Are REITs For You?

You may determine the suitability of REITs for your investment objectives by considering the following factors.

How to purchase	• Contact a Stockbroker
Advantages	• Capital appreciation potential • Liquid investment relative to other real estate investments • Diversification in real estate projects with smaller cash investment • Portfolio diversification effects since REITs generally behave differently from stocks and bonds.
Disadvantages	• Risk of loss in declining real estate market
Liquidity	• Because shares are traded on the stock exchange it may be sold
Taxes	• Tax on capital gains and dividends

On What Basis Should You Choose A REIT?

Consider:

- Profitability, measured by net income before gains or losses on real estate.
- Dividend per share and history
- Cash available for distribution (CAD) per share
- Annual cash flow measured by funds from operations (FFO) per share.
- Condition of properties
- Location of properties, good or bad areas.
- Nature of property (e.g., residential, commercial)
- Degree of leverage
- Years REIT has been in existence

Note: Earnings estimates on REITs are posted to Thompson/First Call based on the basis of net income before gains or losses on real estate and also in FFOs.

What are Sources of REITs Information?

Since REITs are traded on the national exchanges, contact information and financial data can be obtained through many of the same sources you would use for listed stocks, such as S&P's Stock Guide and Value Line Investment Surveys. Moody's Bank and Finance Manual, published annually with twice weekly supplement by Moody's Investment Service and also available on CD-ROM, covers 109 REITs, giving detailed financial information. For a list of current REITs, contact National Association of Real Estate Investment Trusts. (202)785-8717. Visit SNL Financial Website: http://www.snl.com/real_estate/ for detailed information on the nation's REITs and real estate operating companies (REOCs).

Mortgage-Backed Investments

A third way to get into the real estate market is through mortgage-backed (pass-through) securities. A mortgage-backed security is a share in an organized pool of residential mortgages, the principal and interest payments on which are passed through to shareholders, usually monthly. There are several kinds of mortgage-backed securities. They include:

- Ginnie Maes, which is the pet name given for Government National Mortgage Association (GNMA) securities,
- Freddie Macs, which is the nickname for Federal Home Loan Mortgage Corporation (FHLMC) securities,
- Fannie Mae, which is the name given for Federal National Mortgage Association (FNMA) securities, and
- Collaterized mortgage obligations (CMOs), which are mortgage-backed securities that separate mortgage pools into short-,medium-, and long-term portions.

Note: During the 2008-2009 period of financial crisis, when housing prices started to decline, trouble hit these mortgage-backed securities (MBS) and the risky sections started taking on losses. Unemployment, falling property values and weak consumer sentiment have pushed residential mortgage securities down to historically low prices. In many cases, residential mortgage securities were being held at 20 or 30 cents on the dollar, even for performing loans that continue to make payments.

Should You Use Leverage When Investing In Real Estate?

Leverage means use of other people's money (OPM) in an effort to increase the reward for investing. To a lot of people, it means risk. The fact of the matter is, using leverage in real estate investing is an exciting way to earn big yields on small dollars, and you should not fear taking a chance. When you are building real estate wealth, leverage will help you grow quickly without involving too much risk (as long as you watch out for some pitfalls, which will be discussed later). High-leveraged investing in real estate is especially powerful when inflation is in full swing. High-leverage investors have numbers going for them because property values rise faster than the interest charges on their borrowed money.

To see the full power of high-leverage investing, take a look at the following example:

EXAMPLE 5

> You pay a seller $100,000 cash for a piece of property. During the next 12 months, the property appreciates 5 percent and grows in resale value to $105,000. The $5,000 gain equals a 5 percent yield on your investment. But suppose you had put down only 10 percent ($10,000) in the property and mortgaged the balance. Now, your return on investment leaps to an astonishing 50 percent! ($5,000/$10,000). Another way of looking at the result is: Since you only put down $10,000 on $100,000 worth of property, you actually control the asset 10 times the value of your actual cash outlay. This means 5% x 10 times = 50%. (In this example, for simplicity, we've omitted mortgage interest costs as well as the return on the $10,000 you would have invested somewhere else, plus any rental income you would have earned from the property).

Let us expand the scenario to further see the impact of leverage.

EXAMPLE 6

> Instead of putting 100% down ($100,000), you put down 10% ($10,000) and bought nine more pieces of property, each costing $100,000, and each bought with 10% down ($10,000). Again assume that they appreciate at the rate of 5 percent. Therefore, your wealth increases: $5,000 a piece x 10 pieces = $50,000. All that in one year.

Tip: Tying up your wealth in one property ($100,000) cost you $45,000 ($50,000 - $5,000). Conversely, by spreading your funds over more properties and leveraging the balance, you would multiply your earnings 10 times.

Remember: The lower the amount of cash invested, the higher your return (from value appreciation and/or rental income). On the other hand, the larger your cash investment, the lower your return. Also, remember, a higher appreciation will greatly increase earnings on your leveraged investment. Conversely, a greater depreciation, as during the recent real estate recession, will increase losses on leveraged properties.

Investing in Precious Metals

Investments in tangible assets such as gold, silver, and other precious metals have gained popularity in the last decade. They offer:

- A hedge against inflation.
- An opportunity to diversify holdings.
- Psychic pleasure.

It should be noted, however, that this type of defensive investment does not produce current income. Further, it is not an investment easily converted into cash. Appreciation may take years and resale may not be easy.

Gold and silver are two highly volatile forms of tangible assets in which price movements often run counter to events in the economy and the world. Bad news is good news (and vice versa) for precious metal investors. Gold and silver may be generally bought in bullion or bulk form, as coins, in the commodities futures market, indirectly through securities of firms specializing in gold or silver mining, or through mutual funds investing in gold or silver.

Precious gems and other collectibles, such as art, antiques, stamps, Chinese ceramics, and rare books, have attracted the attention of investors. Profits are often very high. But don't invest in these tangibles unless you have product and market knowledge.

Chapter 15 Review Questions

1. ____________ is NOT one of the disadvantages with real estate investments:

   A. No management problem
   B. High transaction costs (brokerage fees, closing expenses)
   C. Negative cash flow with little down
   D. Limited marketability

2. Which one is NOT the kind of real estate you can invest in?

   A. Undeveloped land
   B. Residential rental property
   C. Federal protected lands
   D. Commercial properties

3. Before investing in Real Estate Investment Trusts (REITs) you must consider prior managers. True or False?

Chapter 15 Review Answers

1. ____________ is NOT one of the disadvantages with real estate investments:

A. **Correct.** Management headache is a major downside of owning real estate properties. Disadvantages with real estate investments include: management headaches; high transaction costs (brokerage fees, closing expenses); negative cash flow with little down; limited marketability
B. Incorrect. One of the pitfalls with real estate investing is high transaction costs (brokerage fees, closing expenses).
C. Incorrect. Putting little down would put you in danger of negative cash flow.
D. Incorrect. The real estate market is not as efficient and liquid as the stock market. So It has limited marketability.

2. Which one is NOT the kind of real estate you can invest in?

A. Incorrect. Undeveloped land is a popular vehicle for real estate developers.
B. Incorrect. Residential rental property is an appeal for small investors.
C. **Correct.** Federal protected lands are nor for sale to the public. Kinds of real estate you can invest include: Undeveloped land; residential rental property (e.g., single family houses for rental, and multi-unit apartments); commercial property (e.g., office buildings, shopping centers, and industrial property)
D. Incorrect. Commercial properties are popular for retirement planning.

3. Before investing in Real Estate Investment Trusts (REITs) you must consider prior managers. True or False?

True is incorrect. In selecting REITs, one must consider: Profitability; Annual cash flow; Condition of properties; Location of properties, good or bad areas; Nature of property (e.g., residential, commercial); Degree of leverage; Years REIT has been in existence; Dividend history; the factors such as profitability and location are more important than who owned and managed the properties.

False is correct. When investing in Real Estate Investment Trusts (REITs), past performance of present management should be a consideration, not prior management.

Chapter 16:

Mutual Funds and Diversification

Learning Objectives

After reading this chapter you will be able to:

- Identify the attributes and types of mutual funds.
- Calculate the net asset value on a mutual fund.
- Understand and list investment programs tied with mutual funds.

If you are an investor who wants funds managed by experts and you have limited resources, you can get diversification by investing in a mutual fund. A mutual fund is an investment company that is in the business of investing and managing other people's money. It invests in a variety of securities. When you buy shares in a mutual fund, you become a part owner of such a portfolio of securities. Note: Many of the diversification attributes described for mutual funds also apply to index funds and exchange-traded funds, which will be discussed at the end of the chapter.

Mutual Fund Investing

A mutual fund (or an open-end investment company) is managed by professionals and uses the money to buy diversified securities portfolios. Another name for a mutual fund is an open-ended investment company. Ownership is in the form of proportionate shares.

EXAMPLE 1

Mutual Fund X has the securities below:

Stock	Number of shares
GE	200

AT&T	300
Intel	500

If you have a 3% ownership in the fund, it equals:

6 shares of GE, 9 shares of AT&T, and 15 shares of Intel.

Attributes of Mutual Funds

Mutual fund investing is characterized by:

- *Diversification*. Your investment money may be used to buy a broad range of equity, debt, and other securities. Diversification reduces your risk.
- *Automatic reinvestment*. Dividends, interest, and capital gains may be reinvested into the fund, usually at no charge
- *Automatic withdrawals*. Funds may be withdrawn, usually at no charge.
- *Liquidity*. You can redeem your shares at any time.
- *Switching*. You can go from one fund type to another in a family of funds.
- *Small minimum investment*. Some mutual funds can be bought into initially for less than $1,000.

Net Asset Value (NAV) Determination

The price of a mutual fund share is stated as net asset value (NAV). It is computed as follows:

$$\frac{\text{Fund's Total Assets} - \text{Debt}}{\text{Number Of Shares Outstanding In The Fund}}$$

EXAMPLE 2

Assume on a given date, the market values in a fund follow. The fund has liabilities of $4,500. Then NAV of the fund is calculated below:

(a) GE - $100 per share x 200 shares	= $20,000
(b) Westinghouse - $50 per share x 300 shares	= 15,000
(c) CBS - $75 per share x 100 shares	= 7,500
Total assets	**$42,500**
(d) Liabilities	4,500
(e) Net asset value of the fund's portfolio	$38,000
(f) Divided by number of shares outstanding in the fund	1,000
(g) Net asset value (NAV) per share = (E)/(F)	$38

Assume you own 3% of the fund. Multiply the number of shares you own by the net asset value per share to determine value. Your investment is worth:

3% X 1000 shares = 30 shares; 30 shares X $38 = $1,140

Making Money with a Mutual Fund

You make money from the change in net asset value, dividends, and capital gains.

- *Dividends*: Mutual funds typically pay out a large percentage of their income. You are fully taxed on dividends.
- *Capital Gains Distribution*: Capital gains are distributed each year to fund holders. You are taxed at the maximum capital gains rate of 15%. Do not just consider NAV. It only shows the current market value of your portfolio. Look at the number of shares you own and total value. Your shares will increase over time from dividends and capital gains reinvestment into more shares.

The Total Return on the Mutual Fund

Total return equals:

(Dividends + Capital gains distributed + Price appreciation in fund).

The percentage return equals:

$$\frac{\text{(Dividends + Capital gains distributed + (Ending NAV – Beginning NAV))}}{\text{Beginning NAV}}$$

where (ending NAV - beginning NAV) is price appreciation.

EXAMPLE 3

Your mutual fund paid dividends of $1.00 per share and capital gain distributions of $.40 per share this year. NAV at the beginning of the year was $10.00, and $12 per share at the year-end. Percentage return equals:

$$\frac{\$1.00 + \$.40 + (\$12 - \$10))}{\$10} = \frac{\$3.40}{\$10} = 34\%$$

Mutual Funds and Expenses

If you invest in a mutual fund, there will be some kind of fee. When shopping for funds, you should take a close look at these charges. The charges may be classified as follows: load, management fee, 12b-1 fees, back-end loads, deferred loads, and reinvestment loads.

Load

A load is the fee to buy shares as a form of sales charge. Such charge may range from 1 percent to 8.5 percent (maximum legal limit) of the amount invested. That means if you invested $1,000 in a fund with an 8.5 percent load, only $915 would go into the fund. Mutual fund prices are stated in "bid" and "ask" form. The bid is the price the fund will buy back its shares (at the NAV). The ask or "offer" is the price the investor must pay to buy shares. The difference between the offer and bid is the load. "No-load" mutual funds have no sales fees so there is the same bid and ask prices. Note: A sales fee does not mean better performance of the fund. The fee will reduce your net return rate. Load funds do not perform better than no-load funds.

Management and Expenses Fees
All funds ("no load" or "load") charge a fee to pay a portfolio manager. It typically ranges from 0.5 percent to 1 percent of the fund's assets.

12b – 1 Fees
These charges are for advertising and promotion. They typically range from 0.25 percent to 0.30 percent, but some run as high as 1.25 percent.

Back – End Loads, or Redemption Fees
These are charged when you sell your shares. They are based on a percentage of the shares' net asset value, so steep back-end loads can reduce your profits or increase your loss.

Deferred Load, or Contingent Deferred Sales Fees
These are deducted from your original investment if you sell shares before a specified period.

Reinvestment Loads
These fees are taken out of reinvested interest, dividends, and capital gains. For example, if you receive a capital-gains distribution of $150 and the reinvestment fee is 7 percent, the fund will keep $10.50 and reinvest $139.50.

Kinds of Mutual Funds

Mutual funds are categorized by type depending on purpose, structure, fees, switching privileges, return potential, and risk. You can virtually invest in any type of fund based on your investment goals. There are two basic types of funds: open-end funds, commonly called mutual funds, which can sell an unlimited number of ownership shares, and closed-end funds, which can issue only a limited (fixed) number.

Mutual funds may be categorized as follows:

- *Money market funds*. Money market funds invest solely in short-term debt securities. The price of the fund is constant, so it is very conservative. You can buy and sell shares at $1.00. Money market funds provide high interest income with safe principal.
- *Growth funds*. Growth funds want high return via capital gains. They usually invest in companies with growth exceeding the inflation rate. The stocks have constant long-term, current income. Like other growth investments, the aim of these funds is to increase share value, not pay dividends.
- *Aggressive growth (capital appreciation) funds*. Funds taking greater risk for high capital appreciation. Dividend income is secondary. They concentrate on new, high-tech businesses. They offer the greatest potential for growth, but also the greater risk. Note: These funds are

appropriate if you are not especially worried about near-term variability in return but with long-term appreciation. Aggressive strategies taken may consist of leverage purchases, short selling, call options, put options, and buying stock.

- *Income funds*. Income funds generate current income through investments in securities that pay interest or a cash dividend. These securities include dividend-paying stocks, corporate bonds, and a variety of government securities. Generally, the higher the income sought, the riskier the underlying investments. They offer current income with low to high risk.
- *Growth and income funds*. Growth and income funds emphasize current dividend or interest and capital appreciation. They offer moderate growth potential and moderate risk. The objective is long-term growth. Share value should be stable.
- *Balanced funds*. Balanced funds seek preservation of capital while seeking growth and income. The aim of these funds is to "balance" the portfolio with the best ratio of stocks and bonds within the funds' investment objective guidelines. This is done to adjust to prevailing market conditions. Balanced funds tend to underperform all-stock funds in strong bull markets.
- *Index funds*. Index funds invest in a broad group of stocks based on an index such as the Standard & Poor's 500. Vanguard Index Trust Fund matches the stock index.
- *Sector (specialized) funds*. Sector funds invest by industry (ies). High risk exists because the fortunes of the fund depend of the performance of the specific industry. If an industry takes a “hit” such as pharmaceuticals, huge losses will ensue.
- *International funds*. International funds invest in securities of overseas (foreign) companies. Some international funds invest in one geographic area, such as Fidelity Canada Fund and Vanguard Trustees Commingled International Portfolio. Fund value increases if the dollar decreases due to exchange rates.
- *Municipal tax-exempt funds*. Tax-free funds seek current, tax-free income by investing for the most part in tax-exempt bonds issued by municipalities to build schools, highways and public projects. They offer current tax-exempt income with low to high risk depending on the yield sought and individual investments.
- *Target funds (target-date funds) for retirement*. These relative newcomers to the investing scene are becoming extremely popular for retirement accounts with assets nearly tripling to $33 billion over the past 2½ years. The funds are usually available in five- or 10-year increments from 2010 to 2050. The fund then invests your retirement money in a diversified blend of stocks, bonds, and cash that has a risk/return profile appropriate for someone your age— heavier in stocks if you’re young, heavier in bonds and cash if you’re older. (To be discussed in detail in Chapter 17).

Different Investment Programs with Mutual Funds

There many different kinds of mutual funds as well as diverse ways to buy them. You should consider your financial status, and investment objectives. Some available investment programs follow:

- *Accumulation Plan*. You invest periodically, (e.g., monthly). Minimum investments may be required (e.g., $100 per month). This approach is advisable for long-term investors.

- *Withdrawal Plan*. You obtain periodic payments (e.g., quarterly) of given sum.
- *Life Insurance-Mutual Fund Plans*. There is a combination of life insurance with shares of the mutual fund. If the fund performs well, it pays your insurance premiums. If not, you must pay the premium.
- *Automatic Dividend Reinvestment*. Fund proceeds (dividends and capital gains) are automatically reinvested.
- *Individual Retirement Accounts (IRA*). You contribute $4,000 before-tax-income each year (beginning in 2006). When you take out money at retirement, hopefully you will be in a lower tax rate.
- *Payroll Deduction Plans*. Amounts are withheld from your salary and used to buy fund shares. Typically, there is no load.
- *403 B Plan*. This is for employees working at non-profit entities.

Bond Income Funds

In selecting a bond fund, consider:

- *Quality*. How is the fund rated by Standard & Poor's and Moody's?
- *Maturity*. What is the life? What effect will changing interest rates have? A longer maturity means wider price fluctuation. For example, a 10-year bond varies more in price than a 5-year bond. Note: Check out the duration of your bond fund. Some bond funds manage to produce top returns without undue volatility. For example, Harbor Bond Fund has returned a respectable return -an annualized 11.5 percent over the past five years. Yet its duration is a middle-of-road 5.3 years.
- *Premium or discount*. Funds with high return rates bonds selling at a premium (more than their par value). Such funds are less susceptible to losses if interest rates increase. Funds selling at a discount are below face value. Bonds trading at a discount to face value can lose most.
- *Total return*. Bonds generate more than interest payouts. There is also the question of capital gains or losses, which can make a huge difference in performance. Total return reflects both interest and price changes.
- *Commissions, loads or fees*. Check fees. The difference between yields on the best and worst bond funds is often slight. Such fees can be more important to total return than to the money manager. Check out the expense ratio.
- *Prepayment risk and currency risk*. Prepayment risk exists with funds that invest in mortgage-backed securities, such as Ginnie Maes. Mortgage prepayments accelerate when interest rates decline, and can appreciably shorten your expected long-term string of high payments. Currency risk exists with international bond funds. For example some international funds frequently generate handsome returns, not because of higher interest abroad, but because of a fall in the U.S. dollar value.

Guidelines for Investing in Bond Funds

You must remember the following guidelines:

- Increasing interest rates means lower NAV of bond funds. Therefore, instead of concentrating just on current yield, consider the total return (yield plus capital gains from declining interest rates or less capital losses if interest rates increase).
- All bond funds do not react the same way when interest rates decline. If you believe interest rates will drop, purchase funds that invest in U.S. Treasuries or high quality corporate bonds. Consider high-yield junk bonds if you think interest rates will be stable. Consider the duration of the fund in measuring interest rate risk.
- Bond funds vary greatly. Some are aggressively managed and contain high risks; others buy only government issues and are best suited for conservative investors. Read the prospectus.
- Consider the taxability of interest payments. Interest payments on municipal bonds are generally free from federal income tax and from some state taxes if issued within that state, which is particularly important for investors living in states with high tax rates.

  Note: Bond funds are rated on the basis of standardized (SEC) yield.

Tax-Exempt Municipal Bond Funds

Increases in tax rates have brought tax-free income more attention lately. But you don't need to be in the top brackets to benefit from municipal bonds. As long as your federal rate is 28%, you should give serious consideration to municipal bond funds. When trying to decide how much better (or worse) off you would be with a tax-exempt bond fund than with a taxable bond fund, it's useful to examine your *taxable equivalent yield*, which was discussed earlier.

If similar but taxable bond funds yield less than your taxable equivalent yield, then you are better off in the muni fund, while if taxable funds yield more, you are better off in the taxable fund. What is meant by "similar"? It is important to compare bond funds with a similar average maturity and credit quality. Comparing, for example, the taxable equivalent yield of a short-term muni portfolio with a long-term high-yield corporate fund is not meaningful. *Note*: Muni-bond funds have call risk, which refers to the danger that a bond carrying a relatively high coupon will be called in for early redemption by its issuer. Nearly all municipal bonds have some sort of call provision.

In picking a muni bond fund, what factors should you consider?

1. *Portfolio composition*. What sectors does the fund invest in? Is this diversified enough?
2. *Credit quality*. Look at the breakdown of the fund in terms of credit rating. The larger the proportion of investment grade bonds, the lower the credit risk.
3. *Duration*. The longer the duration, the greater the interest rate risk.
4. *Standard deviation*. The most common statistical indicator of an asset’s risk.
5. *Yield*. Based on the standardized SEC 30-day yield and total return.
6. *Expense ratio*.

Unit Investment Trusts

Similar to a mutual fund, a unit investment trust gives investors the benefits of a professionally managed diversified portfolio. But, unlike a mutual fund, the portfolio is constant. After the initial selections are done, there is no active management. Unit investment trusts include tax-free municipals, corporate bonds, preferred stock and common stock. Unit trusts are good for those on fixed income and who are guaranteed a return on capital. After the fund ceases, investor shares are redeemed.

Choosing a Mutual Fund

Selecting the "right" mutual fund for you involves the following steps:

1. Prepare a fund listing to check what type of fund is appropriate for your risk tolerance and investment needs and objectives.
2. Read the prospectus to choose a fund satisfying your requirements and risk level. The prospectus includes the funds purpose, selection criteria, performance, fees and financial condition. Read the statement, of objectives as well as risk considerations and investment constraints. Look at the Statement of Additional Information containing charges and investment portfolio. Review for annual and quarterly financial information.
3. Does the fund match your requirements?
4. How has the fund performed in both good and bad times over the past 10 years? Compare this fund to comparable funds and market averages of the same type. Examine standard deviation in financial publications. What is the trend in per-share and dollar values?

   Note: Many magazines such as *Business Week*, *Consumer Reports*, *Forbes* and many financial websites publish mutual fund performance statistics. Investment newsletters, such as Morningstar and Lipper Analytical, publishes the fund ranking (to be discussed later).

5. How good is the fund management? Note: The Value Line Mutual Fund Survey has added a Manager Ratings box to its one-page fund reviews to give investors an idea of how that fund manager's performance ranks against those of his or her peers. Keep in mind that your fund is only going to do as well as the person or people who run it.
6. What is the quality of the stock portfolio? How diversified is it? Note: Morningstar Mutual Funds has added a special securities section to its fund-data page to show what percentage of a fund's assets were invested in derivatives, which are regarded risky securities.
7. Check out a fund's expense ratio, which is the percentage of a fund's net assets going annually to cover management fees, transaction costs, administrative overhead, legal and auditing fees, and marketing costs (12b-1 fees). You find this information in the prospectus under the heading "Annual Fund Operating Expenses." Compare expense ratios in similar funds (see the exhibit below) since they can affect a fund's overall performance. For example, one recent study of fund performance found that a $10,000 investment in two no-load funds, each earning 9 percent over 20 years, would grow to $30,475 in the fund with a 3 percent expense ratio and $45,840 in the fund with a 1 percent expense ratio.

Fund	Average Expense Ratio
Stock funds	1.5%
Taxable bond funds	1.0
Municipal bond funds	0.75

8. Compare sales and redemption fees, and shareholder services.
9. Check out fund rankings provided by various ranking services such as *Lipper Analytical Services*, Inc. and *Morningstar*. The so-called performance benchmarking can be used as a way to objectively measure a fund's performance.

Performance Benchmarking

One way to objectively measure your fund's performance is to compare them to similar groups of investments, mutual fund peer groups and market indexes. Popular benchmark indexes are:

- S&P 500
- Russell 2000
- Bloomberg Bond Indexes
- DJIA Index
- EAFE: a stock market index that is designed to measure equity market performance of developed markets outside of the US and Canada. The acronym stands for Europe, Australasia and Far East.
- Morgan Stanley International World Index, Morgan Stanley Europe, Australia, and the Far East Indexes

Mutual Fund Peer Group Rankings

Mutual fund peer group rankings report performance for funds with similar asset classes, strategies, objectives, and risk level.

Peer group is one objective source of information that can assist you in picking a right fund. Typically, funds are first sliced into various categories based on their investment goals. Then each fund is ranked according to a chosen criteria (such as a five-year total return, risk, or risk-adjusted return) by where it falls among all funds in its category. For example, funds in the top 20 percent get a "1" ranking and the bottom 20 percent get a "5." The following is a partial list of ranking sources.

Morningstar Rankings

This is a risk measurement system for comparing more than 2,000 mutual funds' long-term performance available from Chicago-based Morningstar. The system rates stock and bond funds from 5 stars (the best) to no stars (the worst or unrated). Morningstar uses a proprietary system that measures a mutual fund's price and dividend performance as well as the risks taken by the fund management to get those results. The rankings are then made from comparing a fund both in its own category and against the industry as a whole. Thus, the best performing fund in a category that has been in a weak market sector might get only 2 or 3 stars.

When choosing among mutual funds, investors can use Morningstar rankings to find potentially better-performing investments. Many brokerages and financial planning firms limit their clients' investments to 5-star and 4-star funds. But choosing a 5-star fund over a 3-star fund is not always the correct choice. For one, Morningstar's rankings reflect past performance and that often slants the reviews toward funds with recently successful investment styles.

In addition, within each category-notably a poorly performing sector-the highest rated fund may have succeeded by limiting its exposure to certain risks. If an investor believed that an out-of-favor market sector was ready to return, he might want to buy a fund with a lower rating that was more fully invested in that sector. Lipper Mutual Fund Rankings and Value Line Mutual Fund Survey are two other important sources.

Risk-Reducing Strategies for Investing in Mutual Funds

By their very nature, mutual funds tend to be less risky than investing in individual stocks. However, in a bearish market, minimizing or spreading risks is particularly important. Below are five proven risk-reducing strategies for making money in mutual funds.

1. Shoot for low-cost funds. Especially in difficult times, fees and expenses will loom larger, deepening losses and prolonging subsequent recoveries.
2. Build a well-balanced, diversified portfolio. Sensible diversification will spread (or minimize) risks.
3. Use the dollar-cost average method. Investing a fixed amount of money at regular intervals keeps you from committing your whole savings at a market peak. This is how the technique works. If your fund's NAV drops, your next payment automatically picks up more of the low-price shares, cuts your average cost per share and raises your ultimate gain. This is discussed later.
4. Divide your money among fund managers with different styles and philosophies. Funds with differing styles will take turns outperforming, and being outperformed by those with other styles. In a nutshell, you should diversify across mutual funds or a family of funds.
5. Concentrate on short- or intermediate-term bond funds. Typically, the longer the maturity of the bonds in a fund's portfolio, the greater the fund's return--but also the deeper its losses as interest rates rise.

Dollar Cost Averaging

As discussed in previous chapters, dollar-cost averaging is an investment strategy designed to take advantage of the market's long-term upward bias while reducing risk over time. It simply means that you invest the same amount of money on a regular schedule, whatever the market price. It eliminates the need to predict share-price movements and to figure out the right time to buy, and it protects you from putting too much money into the market at just the wrong time. Under this strategy, you buy more shares when the share price of your fund is down, and fewer shares when the price of the fund is high, which can potentially lower your average cost per share and allow you to buy more shares. And lowering your cost can reduce your downside risk. It also ensures that the entire portfolio will not be purchased at temporarily inflated prices.

Dollar-cost averaging has been most effective for mutual fund investing, whose typically small investment minimums allow you to implement this strategy easily in a cost-effective way. Many funds and brokerages make this process easy by allowing purchases through direct deductions from investors' checking accounts or paychecks.

You may unknowingly be using this strategy as part of employer-sponsored savings plans such as 401(k) retirement programs. Many of these benefit plans routinely make equal purchases of assets at set periods, quietly accomplishing dollar-cost averaging.

Dollar-cost averaging will work as long as prices of the fund targeted by the strategy rise over the long haul. Exhibit 1 shows how dollar cost-averaging works for a no-load mutual fund and compares in a hypothetical situation with two other investment strategies: lump-sum up-front investment and lump-sum investment after saving (see Exhibit 2).

Exhibit 1
Dollar Costing Based Mutual Fund Purchase Plan

Period	*Amount Invested*	*Share Price*	*Shares Purchased*
1	$100	$12.50	8
2	100	8.00	12.5
3	100	10.00	10
4	100	8.00	12.5
5	100	10.00	10
6	100	12.50	8
7	100	14.28	7
8	100	12.50	8
9	100	16.67	6
10	100	20.00	5
	$1,000	$124.45	87.0

Average share price = $124.45/10 = $12.45
Total shares owned = 87
Average share cost = $1,000/87.0 shares = $11.49
Total market value now = 87 shares x $20 = $1,740

Exhibit 2
Lump-Sum, Up-Front Investment

Period	Amount Invested	Share Price	Shares Purchased
1	$1,000	$12.50	80
2	0	10.00	0
10	0	20.00	0

Average share price = $12.45

Total shares owned = 80

Average share cost = $1,000/80 shares = $12.50

Total market value now = 80 shares x $20 = $1,600

Lump-Sum, Up-Front Investment After $1,000 Saved

Period	Amount Invested	Share Price	Shares Purchased
10	$1,000	$20.00	50

Average share price = $20.00

Total shares owned = 50

Average share cost = $1,000/50 shares = $20.00

Total market value now = 50 shares x $20 = $1,000

Note that by the process of dollar-cost averaging, you have purchased 87 shares, now worth $20 a piece, for a total market value of $1,740 ($20 x 87 shares). You have invested only $1,000 over the period. In other words, your average share cost of $11.49 is lower than the average ($12.45) of the market price of the fund's shares during the periods in which they are accumulated. So you've actually made money through this process. It works because you bought more shares when they are cheap and fewer shares when they were dear.

Note: Dollar-cost averaging can result in high transaction costs that can lower returns over time. That is why mutual funds, which often charge either no sales fee or a flat commission, are a popular way to implement this strategy.

Investing in Index Funds

If you want the returns of the stock or bond market, but not the risk that your fund manager makes the wrong bet, some experts suggest that you should consider an index fund. It is a sensible method for investors who are not interested in the ongoing process of evaluating funds and wish to obtain the market's return with absolutely no effort and a minimal expense. There are several mutual funds based on the S&P 500 index, which represents approximately 70 percent of the market value of all outstanding U.S. common stocks. Many other index funds are available, emulating different indexes, regions and industries across world.

The advantages of index funds are the following:

1. You simply make one purchase, need make no further decisions, and are guaranteed the same annual return as the market, specialty, region, etc. that fund represents.
2. Lower management costs typically are passed to the fund owner. Index funds are cheap to run since there is no need for any research staff. The average index-fund charges about 0.3 percent, or $3 for every $1,000 invested. This is far less than a standard mutual fund.
3. Index funds usually have all their money in stocks or bonds with no cash cushion needed. The typical actively managed fund keeps a cash cushion of 3 to 10 percent of the portfolio, which is used to handle investor withdrawals and to seek new opportunities. Cash, being the worst performing asset, has been a drag on long-term performance.
4. There is a tax savings advantage. Since index funds rarely trade the securities they hold, there exists significantly less capital gains and thus less taxes.

Exchange Traded Funds

Exchange Traded Funds (ETFs) are similar to mutual funds, but they trade like stocks. Unlike mutual funds, which are priced once per day, ETF prices change throughout the day as do common stocks. ETFs are typically a diversified mix of stocks or bonds that are usually managed by a profession, but usually have a low cost structure because they programmatically follow certain segments of the stock market, or specific indexes, such as S&P 500, Wilshire 2000, bond indexes, different regional indexes, etc. They have fewer restrictions than many mutual funds, such as commission, loads, fees or purchase restrictions. They are a very simple way to achieve a diversified portfolio, and a common trend currently is to purchase ETFs, or index funds, instead of purchasing any individual stocks.

Money Market Funds

Money market funds are a special form of mutual funds. The investor can own a portfolio of high-yielding CDs, T-bills, and other similar securities of a short-term nature, with a small amount to invest. There is a great deal of liquidity and flexibility in withdrawing funds through check-writing privileges. They are therefore called "cash equivalents." Money market funds are considered very conservative, because most of the securities purchased by the funds are quite safe.

The yield, however, fluctuates daily. Despite the myth that all money funds perform about the same, some regularly offer significantly higher yields than others, chiefly because they keep their expenses low.

What are the advantages of money market mutual funds?

- Interest earned.
- No-load.
- Possible small initial deposit.
- Possible check-writing account privileges.

The disadvantage is that these funds are not federally insured.

What questions should be asked in picking a money market fund?

- What is the average maturity? Note: The shorter the average maturity, the safer the fund is likely to be, and the faster the fund will begin offering competitive yields if interest rates rise.
- Can you write checks against your fund without charge?
- What is the minimum check amount, $200 or $250 or $500? Note: The smaller the amount, the more often you can use your fund as a parking place for future investment or for emergency.
- How much do you need to open an account?
- What is the expense ratio? The expense ratios of money-market funds range from about 0.1% a year to 2%.

Ratings

With 6,000-plus mutual funds in existence today, along with numerous ETFs,there is not one source that will satisfy your information needs completely. You can get help in selecting mutual funds from a number of sources, including investment advisory services that charge fees. Most online brokerages offer extensive services to help with mutual fund selection. Also, online investment sites offer tools for screening and selecting mutual funds as well. Other readily available sources include *Money, Forbes, Barron's*, and *The Kiplinger Personal Finance*. *Money* has a "Fund Watch" column appearing in each monthly issue. In addition, it ranks about 450 funds twice a year reporting each fund's 1-, 5-, and 10-year performances along with a risk rating. The *Kiplinger Magazine* publishes its review in October.

Forbes has an annual report covering each fund's performance in both up and down markets. In terms of grading, the top 12.5 percent get an A+; the next 12.5 percent, an A; the next 25 percent, a B; and so on. Value Line Investment Survey shows the make-up of the fund's portfolio beta values. Note: You should not choose a fund only on the basis of its performance rating. You should consider both performance and risk.

Finally, most funds have websites and toll-free telephone services through which you can get detailed information on each family of funds.

Online screening is definitely the easiest and fastest way to pick a mutual fund. Many financial and investment Web sites offer screening devise that allow you to quickly screen over 2,000 mutual funds using criteria which mirror your investment philosophy, to find only the ones that are consistent with your goals, and directly obtain a detailed report on a fund. Screening criteria include:

- Investment objective (for example, aggressive growth, growth, international, municipal, etc.).
- Fees (no-load or load) and expense ratios.
- Performance ratings and rankings.
- Total asset size.
- Management company.
- Dividend yield.
- Risk ratings (for example, beta and alpha).

There is an array of portfolio management tools available online, free or for a fee. Most measure a person's appetite for risk, help set goals and then churn out an ideal portfolio. The results range from simple pie charts, showing what asset classes are suitable, to full-fledged advice telling which stocks, mutual funds, and other financial instruments to buy and sell.

Diversification is the Key

As mentioned in previous chapters, no matter what your goal, proper diversification, allocating investment assets among different types of investments in order to balance risk and return, is a major element of structuring a successful portfolio. *Note*: A feasible portfolio that offers the highest expected return for a given risk or the least risk for a given expected return is called an efficient portfolio.

Beta and Risk and Asset Allocation

You may want to compare your own portfolio of stocks against mutual funds. You can construct and/or adjust your own portfolio, based on beta coefficients. If you desire higher returns and high risk, you would select securities with higher betas (or at least mix high and low beta securities such that the overall beta is higher than 1.0). The beta of a portfolio can be estimated by weighting the individual securities that comprise the portfolio. Table 1 illustrates the calculation of a portfolio's beta. Recall that the basic equation

Expected return = risk-free rate + [beta x (market risk premium)]

Table 1

Calculation of a Portfolio's Beta

Stock	**Beta**	**Percent of Portfolio (%)**	**Portfolio Beta**
Coca-Cola	1.10	30%	.33
GE	.95	20	.19
General Motors	1.50	50	.75
		100%	1.27

The beta of this portfolio is 1.278.

Remember: Adding a security with a high beta will increase the portfolio's beta, while adding a low beta stock will reduce the portfolio's risk. The higher the beta or risk, the higher the potential return expected from the portfolio, especially over the long term. Thus, to get a higher long-run rate of return you may need to increase the beta of your portfolio. However, you should compare the beta of your portfolio against some standard portfolios of mutual or index funds – you may find that a simplified strategy of selecting just a few mutual or index funds will provide you with a portfolio with lower risk and higher potential returns.

Conclusion

The basic advantages of mutual fund investments include diversification, professional management, good return, and convenience. Mutual fund shares can be purchased on a regular account or through either a voluntary or contractual savings plan. Various types of mutual funds are available. First, obtain and study a fund's prospectus to see if its investment goal matches yours. Second, select a fund that performed well in both good and bad markets. Third, choose a no-load fund. Historically, load funds have performed no better than no-loads. Know how to calculate overall return on your mutual fund investment, incorporating all three ingredients: net asset value, dividends, and capital gain distributions.

Websites

MarketWatch
www.marketwatch.com
Set up multiple portfolios and customizable views and download all the data to a spreadsheet. Click on Detailed for a page of quick quotes and charts or Insider to see management's trades. A pie chart reveals your allocation by industry or asset class; a Java chart lets you zoom in on specific price points and plot against a host of variables.

FT.com
www.ft.com
Besides being a great site for international news, FT.com has a useful portfolio tracker especially suited for global investors. You can track both U.S. and foreign stocks listed in major foreign stocks listed in major foreign markets, as well as offshore funds-a feature we haven't seen anywhere else. Plus, you can download portfolios to your PC and view holdings in different currencies from the Irish punt to the Portuguese escudo.

GainsKeeper
www.gainskeeper.com
GainsKeeper offers an advanced portfolio tool. What makes the site a standout is that it calculates adjustments to your portfolio due to wash sales, corporate actions or gain/loss calculations. Your portfolio also includes a personalized watch list to track potential investments.

Morningstar.com
www.morningstar.com
Morningstar's basic service tracks stocks, bonds, funds cash and ADRs.

Vanguard
www.vanguard.com
Vanguard offers a wide-range of investment options, and has many educational pieces on mutual funds and ETFs.

Chapter 16 Review Questions

1. Types of mutual funds include U.S. treasury funds. True or False?

2. EAFE Index is a benchmark market index used for valuing international funds. True or False?

3. ___________ is NOT one of screening criteria to select the right mutual fund:

   A. Investment objectives
   B. Fees and expense ratios
   C. Performance ratings and rankings
   D. Delta screening

4. Money market mutual funds are safer than bank accounts. True or False?

5. A feasible portfolio that offers the highest expected return for a given risk or the least risk for a given expected return is a(n) optimal portfolio. True or False?

6. An investor was expecting a 15% return on his portfolio with beta of 1.25 before the market risk premium increased from 6% to 9%. Based on this change, what return will now be expected on the portfolio?

   A. 18.75%
   B. 15.00%
   C. 18.00%
   D. 22.50%

7. What happens to expected portfolio return if the portfolio beta increases from 1.0 to 2.0, the risk-free rate decreases from 5% to 4%, and the market risk premium remains at 8%?

   A. It increases from 12% to 19%.
   B. It increases from 13% to 20%.
   C. It increases from 13% to 16%.

D. It remains unchanged.

8. A company holds the following stock portfolio: Stock W is 20% of the portfolio with a 0.8 beta coefficient; Stock X is 40% of the portfolio with a 0.6 beta coefficient; Stock Y is 30% of the portfolio with a 1.0 beta coefficient; Stock Z is 10% of the portfolio with a 2.0 beta coefficient. The beta of the portfolio is:

A. 2.0
B. 1.1
C. .8
D. .9

Chapter 16 Review Answers

1. Types of mutual funds include U.S. treasury funds. True or False?

True is incorrect. Mutual funds may be categorized as follows: Money market funds; Growth funds; Aggressive growth (capital appreciation) funds; Income funds; and others.

False is correct. U.S. treasury funds are not mutual funds.

2. EAFE Index is a benchmark market index used for valuing international funds. True or False?

True is correct. Popular benchmark indexes are: S&P 500; Value Line; Russell 2000.

False is incorrect. EAFE index is to international funds as S&P 500 is to domestic mutual funds.

3. ___________ is NOT one of screening criteria to select the right mutual fund:

A. Incorrect. Investment objective is one of screening criteria used to select the right mutual fund.
B. Incorrect. Fees (no-load or load) and expense ratios. is one of screening criteria used to select the right mutual fund.
C. Incorrect. Performance ratings and rankings. is one of screening criteria to select the right mutual fund.
D. **Correct.** Delta is a risk measure for an option. Screening criteria for mutual funds include: Investment objective (for example, aggressive growth, growth, international, municipal, etc.); Fees (no-load or load) and expense ratios; Performance ratings and rankings.

4. Money market mutual funds are safer than bank accounts. True or False?

True is incorrect. The advantages of money market mutual funds include: Interest earned; No-load; Possible check-writing account privileges.

False is correct. Money market funds are not necessarily safer than bank accounts that are federally insured.

5. A feasible portfolio that offers the highest expected return for a given risk or the least risk for a given expected return is a(n) optimal portfolio. True or False?

True is incorrect. An optimal portfolio is a portfolio selected from the efficient set of portfolios that is tangent to the investor's highest indifference curve.

False is correct. A feasible portfolio that offers the highest expected return for a given risk or the least risk for a given expected return is called as a(n) efficient portfolio.

6. An investor was expecting a 15% return on his portfolio with beta of 1.25 before the market risk premium increased from 6% to 9%. Based on this change, what return will now be expected on the portfolio?

A. **Correct.** To determine the required rate, the risk premium is multiplied by the beta. Thus, an increase of 3 percentage points in the risk premium should be multiplied by the beta of 1.25, to arrive at an increase of 3.75%. Adding 3.75% to the original 15% results in a new required rate of 18.75%.
B. Incorrect. 15% is the result of ignoring the change in the risk premium.
C. Incorrect. 18% is the result of failing to multiply the change in risk premium by the beta.
D. Incorrect. 22.50% is the result of adding the risk-free rate to the previous required rate.

7. What happens to expected portfolio return if the portfolio beta increases from 1.0 to 2.0, the risk-free rate decreases from 5% to 4%, and the market risk premium remains at 8%?

A. Incorrect. Both rates are too low.
B. **Correct.** Initially, the calculation under the CAPM is: $r = 5\% + 1.0(8\%) = 13\%$. Following the changes, the new calculation is: $r = 4\% + 2.0(8\%) = 20\%$.
C. Incorrect. The new rate is 20%; this answer ignores the risk-free portion of the new required rate.
D. Incorrect. A change in beta makes a significant change in the required return.

8. A company holds the following stock portfolio: Stock W is 20% of the portfolio with a 0.8 beta coefficient; Stock X is 40% of the portfolio with a 0.6 beta coefficient; Stock Y is 30% of the portfolio with a 1.0 beta coefficient; Stock Z is 10% of the portfolio with a 2.0 beta coefficient. The beta of the portfolio is:

A. Incorrect. 2.0 is the highest beta.
B. Incorrect. 1.1 is a simple average of the betas.
C. Incorrect. .8 is the lowest beta.
D. **Correct.** Beta is the best measure of the risk of an individual security held in a diversified portfolio because it determines how the security affects the risk of the portfolio. The beta of a portfolio is the weighted average of the betas of the individual securities. For example, adding

high-beta securities to a portfolio tends to increase its risk. Hence, the beta of the portfolio is .9 [(.8 x .2) + (.6 x .4) + (1.0 x .3) + (2.0 x .1)].

Chapter 17:

Retirement Planning

Learning Objectives

After reading this chapter you will be able to:

- Outline the steps to be taken for retirement planning.
- Identify different types of retirement options.
- Recognize alternative options for meeting retirement financial requirements.

Many people do not prepare for retirement even though it is a major event in their lives. Are you adequately planning for retirement? Ideally, retirement planning should begin as soon as possible. A financial advisor such as a financial planner, a CPA, or a life insurance agent may advise you on the type of retirement plan to meet your particular needs.

However, you can do much retirement planning yourself. You may compute retirement contributions necessary to achieve your retirement goal as well as compute amounts to be received upon retirement. This chapter discusses:

- What retirement planning involves.
- How to estimate retirement needs.
- Types of pension and retirement plans.
- How to check your pension fund.
- Ways to put the retirement plan to work.
- How to buy annuities.

Retirement Planning

The first step in retirement planning is to develop retirement goals. Once they have been set, you should develop specific saving plans aimed at achieving them. You must take into account present versus future needs, and an examination of how present resources may be allocated to serve future needs. It is important to note that your financial situation at retirement hinges not only on your plans for retirement but also on your choice of career and lifestyle. It is essential to have economic security in old age and to devote some income toward retirement goals. Means of saving for retirement are social security, employer retirement and pension plans, annuities, and individual retirement and savings plans.

An easy way to plan for retirement is to state your retirement income objectives as a percent of your present earnings. For example, if you desire a retirement income of 70 percent of your final take-home pay, you, along with your life insurance agent or financial planner, can determine the amount necessary to fund this need.

Retirement Checklist

As you approach retirement, assess your financial condition using the following checklist. Don't wait too long, or you will miss one or more opportunities to maximize your future financial independence.

1. Do you talk regularly and frankly to family members about finances and agree on your goals and the lifestyle you will prefer as your get older?
2. Do you know what your sources of income will be after retirement, how much to expect from each source, and when?
3. Do you save according to your plan, shifting from growth-producing to safe, income-producing investments?
4. Do you know where your health insurance will come from after retirement and what it will cover?
5. Do you have your own credit history?
6. Do you have a current will or a living trust?
7. Do you know where you plan to live in retirement?
8. Do you anticipate the tax consequences of your retirement plans and of passing assets on to your heirs?
9. Do your children or other responsible family members know where your important documents are and who to contact if questions arise?
10. Do you have legal documents, such as a living will or a durable power of attorney, specifying your instructions in the event of your death or incapacitating illness?

Estimating Requirement Needs

Retirement planning basically involves two steps: first target your retirement needs and then estimate the annual savings necessary to meet that target. Exhibit 1 can be of help for this purpose. Social Security is the most widely used source of retirement income.

A life expectancy table is given in Exhibit 2. It may be difficult to accurately determine your future Social Security benefits, since these benefits are based on your highest 26 years of earnings. A helpful general rule is: The higher the income level, the more supplemental income needed to bridge the gap between current earnings and Social Security payouts.

Exhibit 1
Sample Worksheet for Retirement Planning

1	Current salary		$ 50,000
2	Percentage of current salary to be replaced		70%
3	Retirement income target		$ 35,000
4	Minus: Vested defined benefits		$ 5,000
5	Minus: Social Security benefits (assume 20% of current salary)		$ 10,000
6	Required annual income from investment fund		$ 20,000
7	Life expectancy (from Table 1)		18.9
8	Required target investment		$ 378,000
9	Present target resources:		
	IRA	$ 20,000	
	Keogh	$ -	
	Defined contribution plan	$ 45,000	
	Other investments	$ 90,000	
	Total		$ 155,000
10	Required additions to target fund		$ 223,000
11	Years to retirement		25
12	Current annual savings required to achieve target		$ 8,920*

* It does not include the effect of earnings on the investment fund.

Exhibit 2

Expectation of Life and Expected Deaths, by Race, Sex, and Age: 2011

Age (years)	White		Black	
	Male	Female	Male	Female
At birth	75.7	80.8	69.5	76.5
1	75.2	80.2	69.6	76.4
2	74.2	79.2	68.7	75.5
3	73.3	78.3	67.7	74.5
4	72.3	77.3	66.7	73.5
5	71.3	76.3	65.7	72.5
6	70.3	75.3	64.8	71.6
7	69.3	74.3	63.8	70.6
8	68.3	73.3	62.8	69.6
9	67.3	72.3	61.8	68.6
10	66.3	71.3	60.8	67.6
11	65.3	70.3	59.8	66.6
12	64.3	69.4	58.8	65.6
13	63.4	68.4	57.9	64.6
14	62.4	67.4	56.9	63.7
15	61.4	66.4	55.9	62.7
16	60.4	65.4	55.0	61.7
17	59.5	64.4	54.0	60.7
18	58.5	63.4	53.1	59.7
19	57.6	62.5	52.2	58.8
20	56.6	61.5	51.2	57.8
21	55.7	60.5	50.3	56.8
22	54.8	59.6	49.4	55.9
23	53.9	58.6	48.6	54.9
24	52.9	57.6	47.7	53.9
25	52.0	56.6	46.8	53.0
26	51.1	55.7	45.9	52.0
27	50.1	54.7	45.0	51.1
28	49.2	53.7	44.1	50.1
29	48.3	52.7	43.2	49.1
30	47.3	51.8	42.3	48.2
31	46.4	50.8	41.4	47.3
32	45.4	49.8	40.5	46.3

33	44.5	48.9	39.6	45.4
34	43.6	47.9	38.8	44.4
35	42.6	46.9	37.9	43.5
36	41.7	46.0	37.0	42.6
37	40.8	45.0	36.1	41.6
38	39.8	44.1	35.2	40.7
39	38.9	43.1	34.3	39.8
40	38.0	42.2	33.4	38.9
41	37.1	41.2	32.6	38.0
42	36.2	40.3	31.7	37.1
43	35.3	39.3	30.8	36.2
44	34.4	38.4	30.0	35.3
45	33.5	37.5	29.2	34.4
46	32.6	36.5	28.3	33.6
47	31.7	35.6	27.5	32.7
48	30.8	34.7	26.7	31.9
49	30.0	33.8	26.0	31.0
50	29.1	32.9	25.2	30.2
51	28.3	32.0	24.4	29.4
52	27.4	31.1	23.7	28.6
53	26.6	30.2	23.0	27.8
54	25.8	29.3	22.3	27.0
55	24.9	28.4	21.6	26.2
56	24.1	27.5	20.9	25.4
57	23.3	26.7	20.2	24.6
58	22.5	25.8	19.5	23.8
59	21.7	25.0	18.9	23.0
60	20.9	24.1	18.2	22.3
61	20.2	23.3	17.6	21.5
62	19.4	22.4	17.0	20.8
63	18.7	21.6	16.4	20.1
64	17.9	20.8	15.8	19.4
65	17.2	20.0	15.2	18.7
70	13.8	16.2	12.4	15.3
75	10.7	12.8	10.0	12.3
80	8.1	9.7	7.9	9.7
85	6.0	7.1	6.2	7.5
90	4.4	5.1	4.8	5.7
95	3.1	3.6	3.7	4.3
100	2.3	2.5	2.9	3.2

Source: U.S. National Center for Health Statistics.

(www.census.gov/compendia/statab/tables/09s0103.xls).

Online Retirement Planning

The most fully integrated financial planning software packages as well as a number of sites on the Internet, contain retirement planning programs that perform the same basic forecasting functions as those in Exhibit 1. In essence, you answer a few key questions about expected inflation, desired rate of return on investments, and current levels of income and expenditures, and the computer determines the size of any income shortfall, the amount of retirement funds that must be accumulated over time, and different ways to achieve the desired retirement nest egg. There are also no-cost programs offered by mutual fund companies—Fidelity's Retirement Thinker, T. Rowe Price's Retirement Planning Kit and Vanguard's Retirement Planner—that focus more on early planning rather than on budgeting or portfolio management.

As with any software, you should consider the features of each to find the one that works best for you. An attractive feature of most of these programs is the ability to easily run through a series of "what-if' exercises. By just punching a few buttons, you can change one or more key variables to see how they impact the size of your retirement nest egg and the amount of money you must put away annually. For example, you can find out what would happen if you failed to achieve the desired rate of return on your investments. In addition to this important retirement planning function, such software often allows you to track various retirement accounts to readily see how your performance is stacking up to your retirement goals—whether you are ahead of schedule, and, if not, what you can do to get back on track. Thus, modern, computer-based retirement planning assists you not only in establishing retirement goals and plans, but also in keeping track of your progress toward those objectives. However, as with other areas of financial planning, you should reevaluate your retirement needs whenever the underlying assumptions change—for example, if your personal circumstances change (job loss, divorce, and so on) or inflation rises.

Pension Plans

All pension plans can be classified as defined benefit plans, defined contribution plans, or some combination of the two.

Defined benefit plan. A defined benefit plan specifies the monthly benefit at your retirement age. Each year, the employer contributes to a pension plan an amount necessary to pay for those future predetermined benefits. The present contribution is determined, based upon assumed investment returns and probabilities of survival. A typical benefit formula states that the eligible employee will receive for each year of service some percentage (usually between 1/2 and 2 percent) of the average salary in the last five years of employment.

EXAMPLE 1

> Under a 1.5% formula, if your salary for the five years prior to retirement averaged $3,000 a month and you had twenty years of service, you would receive each month $900 a month (20 years x 1.5% x $3,000).

With this plan you know how much you will receive, but you do not know how much those monies will be worth. Inflation can be a discouraging factor.

Defined contribution plan. In this plan, you are not guaranteed a specified benefit at retirement. Your benefits will hinge on future contributions and the investment performance of the retirement plan you are in. The contribution to the pension fund is usually fixed as some percentage of the worker's salary. The defined contribution plan specifies the annual contribution to be paid each year to the pension plan.

EXAMPLE 2

> You earn a career average annual salary of $40,000 and make a 10% annual contribution to the fund--that is, $4,000 annually. If the contribution earns an 8% annual return, the amount that would be accumulated in the fund after thirty years is:

$4,000 x Table 2 factor = $4,000 x 113.183 = $452,732

Note: Many defined contribution plans permit you to make an additional voluntary contribution to the retirement account.

Company and Individual Retirement Plans

- Company-sponsored pension plans
    - Qualified company retirement plans
    - Profit sharing plans
    - 401(k) salary reduction plans
    - Guaranteed investment contract (GIC)
    - Tax-sheltered annuity (TSA) plans—403(b) plans or 457 plans
    - Employee stock ownership plans (ESOP)
    - Simplified employee pension plan (SEP)
    - SIMPLE (Savings Incentive Match Plan for Employees of Small Employers)-IRA plan
- Individual retirement plans
    - Individual retirement accounts (IRAs)
    - Keoghs
    - Annuities

Qualified company retirement plans. The IRS permits a corporate employer to make contributions to a retirement plan that is qualified. Qualified means that it meets a number of specific criteria in order to deduct from taxable income contributions to the plan. The investment income of the plan is allowed to accumulate untaxed.

Profit-sharing plans. A profit sharing plan is a type of defined contribution plan. Unlike other qualified plans, you may not have to wait until retirement to receive distributions. Note: Since the company must contribute only when it earns a profit, the amount of benefit at retirement is highly uncertain.

401(k) salary reduction plans. In addition to, or in place of, a qualified pension plan or profit sharing plan, you may set up a 401(k) salary reduction plan, which defers a portion of your salary for retirement. This is like building a nest egg for the future by taking a cut in pay. Tax savings more than offset a "paper cut" since you end up with more take-home pay and more retirement income. A 401(k) is tax-advantaged. Participating in a 401 (k) saves you federal (and most likely state) income taxes in several ways. First, the money in your 401 (k) is known as deferred compensation, meaning it doesn't appear on your W-2 form and thereby escapes both federal income tax and Social Security taxes (unless your gross income after the 401(k) contribution exceeds the maximum income for which Social Security is withheld). The money you invest in your 401(k) also grows tax-free until you begin making withdrawals. Dividends, interest, and capital gains won't be taxed as long as you reinvest them in the plan. And depending on where you reside, your 401(k) contribution may escape state and local income taxes. The employer often matches the contributions of participating employees. *Note*: 403(b) plans are equivalent to 401(k), but for nonprofit employers while 457 plans are for state or local government employees.

EXAMPLE 3

> You earn a taxable $30,000, and contribute 8 percent ($2,400) of that to your 401(k). As you'll note on your W-2 form next year, your earnings subject to federal tax will be $27,600. Second, reducing your federal income taxes means that the $2,400 you contribute goes directly to work for you. Furthermore, assuming you're in the 28 percent bracket, your doing so reduces the amount you pay to IRS this year by $672.

EXAMPLE 4

You save 15 percent of your $60,000 annual salary in a 401(k) plan. Assume that the marginal tax rate is 25 percent. See how you fare with a 401(k) plan and without one.

	Take-home Pay	
	With 401 (k) Plan	Without 401 (k) Plan
Base pay	$60,000	$60,000
Salary reduction	9,000	None
Taxable income	$51,000	$60,000
Federal and FICA taxes	12,750	15,000
Savings after taxes	None	9,000
Take-home pay	$38,250	$36,000

Incremental take-home pay under plan = $2,250 ($9,000 × 25%).

Note that your retirement income will grow faster inside a tax-sheltered plan, such as 401(k), than outside one. This is because the interest you are earning will go untaxed and therefore keep compounding.

Guaranteed investment contract (GIC). An investment product, offered mostly by life insurance companies, that promises to pay a set rate of interest to investors over the life of the contract; found mostly in 401(k) and other company-sponsored retirement plans, the only guarantee they carry is that of the company that sold the contract. Note: They're sold as low-risk investment products that might be suitable for conservative investors.

Tax-sheltered annuities (TSA). If you are an employee of a non-profit institution, you are eligible for a TSA. A TSA is similar to the 401(k), but you may withdraw the funds at any age for any reason without tax penalty. Note: You must pay ordinary taxes on all withdrawals.

Employee stock ownership plans (ESOP). ESOP is a stock-bonus plan, not necessarily a retirement plan. The contributions made by the employer are tax deductible.

Simplified employee pension (SEP). SEP is a plan whereby an employer makes annual contributions on the employee's behalf to an IRA set up by the employee. Annual contributions an employer makes to an employee's SEP-IRA cannot exceed the lesser of: 25% of compensation, or $50,000 for 2012 and $51,000 for 2013 (subject to annual cost-of-living adjustments for later years).The limits in the preceding sentence apply in the aggregate to contributions an employer makes for its employees to all defined contribution plans, which includes SEPs. Only up to $250,000 in 2012 and $255,000 for 2013 (subject to annual cost-of-living adjustments for later years) of an employee's compensation may be considered. Contributions must be made in cash. Property cannot be contributed.

SIMPLE (Savings Incentive Match Plan for Employees of Small Employers)-IRA plan. This plan gives businesses with 100 or fewer employees an affordable way to offer retirement benefits through employee salary reductions and matching contributions (similar to those found in a 401(k) plan). This is another IRA plan, to which participants can contribute $10,000 per year with employer matching a total of up to $20,000. The SIMPLE really is a simple alternative to 410(k)s. Limits for SIMPLE plans are lower than for most other types of employer-provided retirement plans: $11,500 for 2012 ($12,000 in 2013).), as compared to $16,500 for convention defined contribution plans (Section 402(g) limit) like 401(k), 401(a), and 403(b) plans.

Managing for Retirement

Just how golden your golden days will be depends on how well you manage your IRA, 401(k) or other retirement plans now, while they are building up. This means staying on top of interest rates and being ready to move your money to get the best return.

A few percentage points can make all the difference. If you have, say, $20,000 in tax-free retirement funds earning 6% in a savings account, it will grow to $114,860 after 30 years. If you invested the same amount at 9%, you'd have $265,360 after 30 years.

EXAMPLE 5

$10,000 invested at 10%, 12%, or 14%, after 30 years:

	10%	12%	14%
Amount invested	$10,000	$10,000	$10,000
Future value of $1 (Table 1 = T1 in Appendix)	17.450	29.960	50.950
Compound amount after 30 years	$174,500	$299,600	$509,500

Even if your retirement funds are managed for you, you usually have a choice of investments, offering different yields and risks. Usually, you can divide your savings among them, with the option of switching periodically. If you manage your own funds, you have a broad choice that ranges from certificates of deposit (CDs) to mutual funds.

The key is to be aware of the interest on your investments. Be sure interest is ahead of current inflation. Understand the magical power of compound interest and tax deferred growth.

Traditional Individual Retirement Account (IRA)?

If you do not have a qualified retirement plan, or you would like to supplement a company plan through additional private savings, the benefits of tax deferral can also be attained through individual-oriented investments, such IRAs, Keoghs, and annuities.

A traditional IRA is a retirement savings (investment) plan that individuals set up for themselves. The maximum contribution is $5,000 or the amount of compensation earned, whichever is less. A married couple may contribute up to $10,000 if each of them earns $5,000. $5,000 can be contributed to a non-working spouse's IRA. The IRA is a qualified individual retirement plan whereby your contributions not only grow tax-free but may be excluded from your taxable income.

It is important to remember that a person who is covered by an employer's retirement plan, or who files a joint return with a spouse who is covered by such a plan, may be entitled to only a partial deduction or no deduction at all, depending on the adjusted gross income (AGI). The deduction begins to decrease when the taxpayer's income rises above a certain level and may be phased out at higher income levels.

If you are not covered by an employee retirement plan, you can take a full IRA deduction of up to $5,000, or 100% of compensation, whichever is less. *Note*: If you are self-employed, you can set up a Keogh plan.

Note: IRA money can be used for home purchase. Up to $10,000 in an IRA could be used toward closing costs for qualified first-time homebuyers without penalty. However, the money must be used within 120 days of withdrawal as a down payment on a first home. While it is free of the usual early-withdrawal penalty of 10%, it's still subject to income tax (unless the IRA was a Roth IRA). None of the withdrawal can be used to pay the tax; all of it must go toward the down payment.

Roth IRA

Like a traditional IRA, a Roth IRA is a retirement savings plan that individuals set up for themselves. The Roth IRA has the same contribution limits as a traditional IRA. The major differences between traditional IRAs and Roth IRAs are summarized below.

- Earnings from a Roth IRA may be exempt from income tax; earnings from a traditional IRA are taxed when withdrawn.
- Contributions to a Roth IRA are never tax deductible; whereas contributions to a traditional IRA may be tax deductible.
- Roth IRA allows for penalty-free access to contributions at anytime
- AGI restrictions affect contributions to a Roth IRA; there no AGI restrictions on contribution to a traditional IRA, but higher AGI's could affect whether the contribution is tax deductible.
- There is no age restriction on contributions to a Roth IRA; contributions to an ordinary IRA can be made only until the year the individual turns age 70 ½.

In 2013, you can contribute up to $5,500 annually. Your contribution to a Roth IRA is not tax deductible, but assuming that you follow the rules, when your money comes out of the account at retirement, the distributions are tax-free. For someone who is young and has lots of time to let compound interest work, that can be exceptionally valuable.

However, if you earn more than certain income thresholds, your ability to contribute to a Roth begins to phase out and is eliminated.

Note: See Exhibit 3 for updates on limits of contribution.

Putting the IRA to Work

Here are some ways to put your IRA to work:

- *Certificates of deposit (CDs)*. If you are conservative, put money in CDs. Returns on CDs are not flashy, but you sleep well at night!
- *Money market funds*. Again, when you put safety first over anything else, you can put your IRA in a money market fund that specializes especially in Treasury securities.
- *Bond funds and gold funds*. It is a way to get secure income while hedging against inflation. Warning: With any hedge, you reduce risk but at the same time reduce return.
- *Ginnie Maes*. Many financial advisors recommend Government National Mortgage Association mutual funds. They pay monthly principal and interest.
- *Mutual funds of "blue chip" stocks*. If you are investment-oriented but want professional management, you can invest in a mutual fund concentrating in large, established companies.

Over time, dividends will compound. In case stock prices tumble, think long term. Note: By the time you retire, many more bull markets will have come to boost the value of those shares.

- *Index Funds or ETFs*. A diversified selection of these will assist in reaching your retirement needs.
- *Fund of funds*. When using a family of funds, you pay no sales charge when switching.
- *U.S. gold and silver coins*. IRAs can include U.S. gold and silver coins. They have the potential for future appreciation.

Keogh Plans

A Keogh, also called *H.R. 10 plan*, is a tax-deferred retirement plan for self-employed individuals meeting certain requirements. You make contributions to the account are tax-deductible, and all interest accumulates tax free until the time such funds are withdrawn. You can contribute, and deduct, up to 25 percent of your net income—or a maximum specified sum set by the federal government each year, whichever is less. Of course, you don't have to participate to the maximum. You can instead invest an amount that is appropriate relative to your other retirement savings plans. If you have a Keogh plan, you can also open, or continue to contribute to, an IRA. Or, in addition to the regular tax-deductible Keogh contribution, you can place the tax-deductible contribution you would make to your IRA in your Keogh account and still deduct it from your tax return. However, the amount of your additional Keogh contribution reduces, dollar for dollar, the yearly amount that you may contribute to your IRA. And if you are having a particularly good year, you may also make voluntary contributions to your Keogh account of up to 10 percent of your earned income on top of what is normally contributed; these contributions are not tax-deductible, but the earnings are tax-deferred.

Note: Keogh plans are less common now that individual 401(K) and SEPs are available due to the administrative burdens associated with Keogh plans.

Contribution Limits to Various Retirement Accounts

The Economic Growth and Tax Relief Reconciliation Act of 2001 gradually raised the amount employees could contribute via salary reduction to employer-sponsored retirement plans. For instance, the annual limit for 2014 for contributions to employer-sponsored retirement plans is $17,500 for 403(b), 401(k) plans, and for government 457 plans (see Exhibit 2). The law included "catch-up provisions that enabled people age 50 and over to make additional contributions.

IRA contribution limits also increased and, as with employer-sponsored plans, included catch-up provisions. The law also increased contribution limits for Keogh plans, which are tax-deferred retirement plans for self-employed individuals and their employees.

Exhibit 2

Limits of Contribution

Year	*IRA limits**	*IRA catch-up provisions*	*401(k), 403(b), & 457 plan limits****	*401(k), 403(b) & 457 plan limits catch-up provisions*
2013	5,500	6,500	17,500**	23,000
2014	5,500	6,500	17,500**	23,000

*Includes Roth and regular IRAs.

**Contribution limits are adjusted annually for inflation, rising in increments of $500.

***In the last three years before retirement, workers age 50 and over in 457 plans can save double the limit for those who are under age 50

Exhibit 3

Roth IRA Phase-Out Range & Limits*		
Year	*Single*	*Married Filing Jointly*
2013	$112,000 - $127,000	$178,000 - $188,000
2014	$114,000 - $129,000	$181,000 - $191,000
* http://www.irs.gov/Retirement-Plans/Plan-Participant,-Employee/Retirement-Topics-IRA-Contribution-Limits		

Exhibit 4 presents comparisons among various retirement plans.

Exhibit 4
Retirement Plan Review

	ELIGIBILITY	FUNDING RESPONSIBILITY	ANNUAL CONTRIBUTIONS PER PARTICIPANT*	VESTING OF CONTRIBUTIONS	ADMINISTRATIVE Responsibility
401(k)	Any type of public or private company	Primarily employee salary reduction contributions and optional employer contributions	Up to a maximum of $17,500	Employee contribution vested Immediately; different vesting schedules available for employer contributions	Form 5500 and special IRS testing ensure plan does not discriminate in favor of highly compensated employees
SEP-IRA	Individual, business owner or individual who earns any self-employed income	Employer Contributions only	Up to 25 percent of compensation,	Immediate	Form 5305
SIMPLE-IRA	Businesses with 100 or fewer eligible employees who do not currently maintain any other retirement plan	Funded by employee salary reduction contributions and employer contributions	Up to 100 percent of compensation, to a maximum of $12,000 + employer contribution	Immediate	5304-SIMPLE or 5305-SIMPLE

*As of 2013.

Vesting Periods. The time at which employees have ownership rights to benefits from an employer-sponsored retirement plan. Employer matching contributions must be available to account holders after three years of service or after six years if the employer contributions vest gradually.

Roth IRA-Type 403(b) and 401(k) Plans. These retirement plans would operate like Roth IRAs — there would be no tax deductions on contributions, earnings would be tax deferred, and qualified withdrawals would be tax free.

Reverse Mortgages

Reverse mortgages are a way for seniors to enjoy their retirement as well as cope with inflation and what comes with it. The reverse mortgage enables older homeowners to convert part of the equity in their homes into income without having to sell, give up title or make monthly payments.

Homeowners must be 62 or older to be eligible. In a reverse mortgage, the lender pays the homeowner – the opposite of a traditional mortgage where the homeowner pays the lender. The homeowner has the option to receive monthly payments, a lump sum payout, a line of credit or any combination. The loan is due, with interest, when the borrower dies, moves or sells the house. The lender only requires that the property be properly maintained and occupied by the borrower. Property taxes and insurance must be kept up to date, but the reverse mortgage has an option in which the lender can pay those for the homeowner, too. Homeowners (and their heirs, if desired) must consult with a government-approved reverse mortgage counselor and get an approval certificate before they can get the loan. The counselor goes over all the available options of a reverse mortgage and other financial choices. *Note*: There will now be a limit on the amount of money that can be withdrawn in the first year—60% of the money a homeowner is eligible to withdraw, in the first year.

There are no limitations on what the customer can do with the money. Most experts agree, however, that the reverse mortgage is a protected way for seniors to handle today's rising costs of living, including health care and prescriptions. Seniors can even obtain a reverse mortgage to pay off their existing mortgage, thus getting rid of monthly payments altogether.

Here is how a reverse mortgage can work: The homeowners obtain a reverse mortgage and receive a monthly income. Should the homeowners die or move, the reverse mortgage must be repaid by selling the property or refinancing it. The total owed is what has been paid out to the homeowners plus interest and fees. The heirs are left with any remaining equity. If the reverse mortgage exceeds the home value, the lender receives only the selling price and no more.

If the homeowners sell their home, they simply pay back the reverse mortgage, just like a regular mortgage. They can use any remaining equity as they wish. With prices on the rise, seniors who need more cash can take out a reverse mortgage to take advantage of being "house-rich, cash-poor" without having to sell the property, find another place to live or make monthly payments. A reverse mortgage can be win-win. Defaults can occur when homeowners fail to pay property taxes and homeowners insurance. There are limits to the price of the house. Current FHA max lending limit is $625,000.

Note: To help lower costs of reverse mortgages for older Americans, Ginnie Mae has created a Home Equity Conversion Mortgage Mortgage-Backed Security (HECM MBS). The HECM MBS will allow approved issuers to securitize and sell their Federal Housing Administration (FHA) insured home equity conversion mortgage loans in the form of a Ginnie Mae MBS. The FHA insures virtually all reverse mortgages

Pension Plans

Every year, employees enrolled in hundreds of retirement plans are surprised to find that the "nest egg" they were counting on for their later years is not as secure as they once believed. Employers may have used pension assets to make questionable loans, to make bad investments, or simply "line their own pockets." *Tip*: Check your pension fund on a regular basis. You do not want to find out at retirement that the fund has been mismanaged. Here are some questions you might want to ask about your pension plan.

- Are your pension plan's investments diversified enough?
- What kinds of investments have been made?
- Is there evidence of financial losses or loans in default?
- Have there been suspicious transactions with people that have connections with the fund?
- Do the fees paid to the trustees or managers seem excessive?
- Have CPAs given any "qualified" or negative opinions on the plans?

Warning: Most employer pension plans are built and funded on the assumption that many plan members will never receive benefits. It is also important to check out as early as possible what the rules are so you can guard against becoming one of those losers (nonqualifiers). For example, quitting a job a few months or even weeks or days before a certain pension deadline might result in a loss of pension rights.

Here are some points to investigate:

- Is your job covered by your company pension plan?
- When will you become eligible for membership?
- How long must you work before your benefits are vested?
- How many hours must you work during the year to remain in the plan and accrue benefits?
- What is the formula for determining benefits?
- What is the earliest age or combination of age and years of service at which you may retire?
- How much will your retirement benefits be reduced if you retire early?
- How much will your retirement check be increased if you stay past age 65?
- Will your pension amount be reduced by social security benefits and if so, by how much?
- What would happen to your pension status if you took a leave of absence?

Investing in Target Date Funds for Retirement

If you feel overwhelmed by the dozens of different investing options out there for your 401(k), IRA and other retirement accounts, here are relative newcomers, a type of mutual fund known as a target-date retirement fund. Most of cash has come from 401(k)s; many plans are now using these funds as a default option for participants who don't specify how their contributions should be invested. But more and more investors are also choosing target funds for IRA rollovers and even for retirement assets held outside tax-advantaged plans.

Target-date mutual funds for retirement savings took a beating in the 2007-09 bear market. But the stock market's strong rebound since then has helped generate impressive gains for these all-in-one portfolios over the past year and three years. The Standard & Poor's 500-stock index returned a sizzling 30% (including dividends) over the 12 months through September, 2012 and an average 13% a year over the past three years, according to Morningstar.

How Target Date Plans Work

First, you pick a fund with a date that roughly corresponds to the year you plan to retire. The funds are usually available in five- or 10-year increments from 2015 to 2050. The fund then invests your retirement stash in a diversified blend of stocks, bonds and cash that has a risk/return profile appropriate for someone your age— heavier in stocks if you're young, heavier in bonds and cash if you're older. But here is the really neat part: Whatever asset mix the fund starts out with, it automatically shifts money from stocks into bonds and cash over time, so that the portfolio becomes more conservative and less volatile as you move toward retirement. By the time you retire, the fund is mostly invested in bonds and cash with a modest stock position to provide some long-term growth. All this takes place behind the scenes, however; all you have to do is sit back and enjoy the ride.

Shop for Asset Mix and Fees

You'll also want to know what the fund actually invests in. Fidelity Freedom funds, for example, invest exclusively in actively managed Fidelity mutual funds. Vanguard, not surprisingly, limits itself to the company's stable of index funds. T. Rowe Price uses a combination of its S&P 500 index fund and its actively managed funds, while the Barclays LifePath funds track standard benchmarks but attempt to juice returns through quantitative techniques. Again, it's a matter of trade-offs—the certainty of getting market returns with indexes vs. the opportunity to do better (or worse) with active management. Check the fees, since every dollar in expenses reduces a fund's gross return (see the table below for a comparison). Fees are particularly important for target-date funds because of their long-term nature. Most of Vanguard's target-date funds charge about 0.20% of assets annually, while many other funds charge between 1% and 1.5%. The table below shows one-year and three-year performances and the amount of assets for large target-date retirement funds.

	One-Year Return Through 9-30-12	Three-Year Return (Annualized)	Assets (mils.)
TARGET RETIREMENT YEAR: 2010			
Largest Funds			
Fidelity Freedom 2010 (FFFCX)	15.07%	8.10%	$6,454
Vanguard Target Retirement 2010 Inv (VTENX)	14.74	8.97	6,060
T. Rowe Price Retirement 2010 (TRRAX)	17.98	9.26	5,739
Principal LifeTime 2010 Instl (PTTIX)	16.21	9.77	1,706
American Funds Trgt Date Ret 2010 A (AAATX)	14.70	8.66	993
Top and Bottom One-Year Perfomance			
T. Rowe Price Retirement 2010 (TRRAX)	17.98	9.26	5,739
Wells Fargo Advantage DJ Target 2010 A (STNRX)	8.13	6.10	852
TARGET RETIREMENT YEAR: 2020			
Largest Funds			
Vanguard Target Retirement 2020 Inv (VTWNX)	18.30%	9.38%	$15,692
T. Rowe Price Retirement 2020 (TRRBX)	21.81	10.28	15,549
Fidelity Freedom 2020 (FFFDX)	17.13	8.72	14,338
Principal LifeTime 2020 Instl (PLWIX)	21.01	10.15	5,553
Fidelity Advisor Freedom 2020 A (FDAFX)	16.88	8.77	2,943
Top and Bottom One-Year Perfomance			
T. Rowe Price Retirement 2020 (TRRBX)	21.81	10.28	15,549
PIMCO RealRetirement 2020 A (PTYAX)	10.89	6.88	69
TARGET RETIREMENT YEAR: 2030			
Largest Funds			
T. Rowe Price Retirement 2030 (TRRCX)	24.46%	10.79%	$13,198
Vanguard Target Retirement 2030 Inv (VTHRX)	21.43	9.89	12,305
Fidelity Freedom 2030 (FFFEX)	20.10	9.11	10,936
Principal LifeTime 2030 Instl (PMTIX)	22.53	10.29	5,153
Fidelity Advisor Freedom 2030 A (FAFEX)	19.90	9.23	2,566
Top and Bottom One-Year Perfomance			
T. Rowe Price Retirement 2030 (TRRCX)	24.46	10.79	13,198
PIMCO RealRetirement 2030 A (PEHAX)	12.29	6.90	61
TARGET RETIREMENT YEAR: 2040			
Largest Funds			
T. Rowe Price Retirement 2040 (TRRDX)	25.59%	10.89%	$8,795
Vanguard Target Retirement 2040 Inv (VFORX)	23.43	10.11	7,755
Fidelity Freedom 2040 (FFFFX)	22.16	9.08	6,905
Principal LifeTime 2040 Instl (PTDIX)	23.93	10.24	3,131
TIAA-CREF Lifecycle 2040 Retire (TCLOX)	24.71	9.77	1,827
Top and Bottom One-Year Perfomance			
T. Rowe Price Retirement 2040 (TRRDX)	25.59	10.89	8,795
PIMCO RealRetirement 2040 A (POFAX)	15.61	8.26	60

Note: Funds with less than three years of history or less than $25 million in assets are excluded.
Source: Morningstar

Source: Morningstar, April, 2012

Annuities

An annuity is a savings account with an insurance company or other investment company. You make either a lump-sum deposit or periodic payments to the company and at retirement, you "annuitize"--receive regular payments for a specified time period (usually a certain number of years or for the rest of your life). All of your payments build up tax-free and is only taxed when withdrawn at retirement, a time when you are usually in a lower tax bracket. Although mostly sold by life insurance companies, annuities are really the opposite of life insurance: annuities pay off when you retire; life insurance pays off when you die.

Annuities come in two basic varieties: fixed and variable.

- *Fixed rate annuities*. Fixed annuities earn a guaranteed rate of interest for a specific time period, such as one, three or five years. Once the guarantee period is over, a new interest rate is set for the next period. If you have little tolerance for risk, the fixed annuity is an ideal investment. The guarantee of both interest and principal makes fixed annuities somewhat similar to CDs purchased from a bank. Unlike a typical CD, however, an annuity is not backed by the FDIC; its security is directly related to the financial health of the insurance company that issues the annuity.
- *Variable annuities*. Variable annuities typically offer a range of investment or funding options. These funding options may include stocks, bonds and money market instruments. The return on variable annuities can go up or down. Your principal and the return you earn are not guaranteed; they depend on the performance of the underlying investment options. The good thing is that most companies allow you to switch to another fund within the variable variety. Don't be swayed by last month's top performer. Look for strong returns over a three-to-five-year period or more. The history of various funding options also can be found in Morningstar and Lipper Analytical Services. *Note*: Past performance is not a guarantee of future results.

Annuities can work for everybody. For young people, the vehicles are an excellent forced savings plan. For older people, they are tax-favored investments that can guarantee an income for life. Retirement annuities offer two main advantages:

- Interest is not taxed until you collect those monthly checks at retirement, when your tax bracket should be lower.
- Interest earned each year without a tax compounds your wealth quickly.
- Unlike pension plans and IRAs, there are no limitations on the amount you may contribute to an annuity.

Pitfalls of Annuities

- Limit your financial freedom. Withdrawals before 59 ½ may be subject to a 10% penalty on interest or any earnings, in addition to ordinary income tax.
- The interest earned can be reduced by inflation or lag behind the return of other investments
- Surrender charges if you decide to cash in the contract early.
- The so-called nonqualified annuities, which are annuities with the tax-deferral feature but which are paid for with after-tax dollars.

Qualified annuities, on the other hand, are used to fund such vehicles as Individual Retirement Accounts (IRAs) and pension plans. In a qualified annuity, the contributions not only grow tax-free but are also either tax deductible or not included in your income. If you qualify, you should always make contributions to programs like IRAs and pension plans first. It makes sense to invest first in a plan where contributions are made with before-tax dollars.

How to Purchase Annuities

The money contributed to an annuity may be in post-tax dollars. When you contribute after-tax savings to an annuity, you can put in as much money as you like. Before you put after-tax savings into an annuity, it may be advisable for you to put the maximum pre-tax amount into a retirement plan such as your IRA, SEP, 401(k) or 403(b). Note: The SEC said most investors should avoid purchasing a variable annuity for an IRA, 401(k) or other tax-qualified retirement plan, and instead make the maximum contributions to those plans before considering an annuity.

Also note that annuities may fund an IRA, SEP, 401(k), 403(b). When an annuity is used to fund these vehicles there are contribution limits that apply, and federal tax laws generally require that you begin taking minimum distributions by April 1 of the calendar year following the year in which you reach age 70 1/2. Failure to do so will result in a tax penalty of 50% of the amount of the shortfall.

Expenses can vary. Make sure that the annuity contracts you consider have competitive fees. Independent rating services such as Morningstar and Lipper Analytical Services both publish reports that compare variable annuity fees. You can purchase an annuity in two ways:

- Make one lump-sum payment to purchase a single-premium annuity. If you want to contribute more money at a later date, you will have to purchase another annuity.
- Make ongoing contributions to a flexible-payment annuity. You can contribute money at regular or even irregular intervals anytime you want.

Here are some tips for buying an annuity:

- Deal with a firm that is financially sound and strong. Only buy annuities from companies that have an A+ rating (which you find in A.M. Best's publication, Best's Insurance Reports). Checking up on an insurance company is easy at your state's Department of Insurance. A.M. Best, Standard & Poor's and Moody's all rate the financial stability of insurance company general accounts. Morningstar and VARDs evaluate and report information on variable contracts only. Variable annuities are rated by independent sources such as Lipper Analytical Services, VARDs and Morningstar. It's a good idea to choose an annuity from a company that gets high marks from at least two independent rating sources.
- Ask the sales representative about the company's investment performance. Make sure you see written documentation.
- When considering variable annuities, select those that are well diversified.

- Ask the sales representative for a detailed description in the contract of all charges (such as surrender, administrative, mortality, and investment advisory). List them and compare different annuities.
- Closely read the sales literature and the annuity contract. For variable annuities, examine the prospectus just like you would do for a mutual fund. The company does not have to issue a prospectus for a fixed annuity since it is not considered a registered security.
- Shop around. Annuity sellers are very competitive. Comparison shopping will pay off.

Recommendations

You should consider buying a retirement annuity if you:

- May not get other tax-free retirement plans such as Keoghs, and company-sponsored savings plans.
- Need a "pay-the-bill" approach to make you save.
- Enjoy the security of that guaranteed check during retirement.
- Do not want to manage individual investments such as stocks.

You might not want to consider them if:

- Can obtain other tax-deferred savings programs.
- Expect income and savings to be sufficient enough that you can afford the luxury of risk-taking in your retirement savings.

EXAMPLE 6

When you retire, you want to receive an annual annuity of $20,000 for your expected remaining life of 20 years. The interest rate is 10%. The amount you need in your pension plan to do that is:

$20,000 x present value of ordinary annuity for n=20, i=10%
$20,000 x 8.5136 (from Table 4 in the Appendix) = $170,272

Other Options for Risk-Averse Retirees

Another type of annuity, known as an immediate annuity, can provide significant benefits to risk-averse retirees who want to be sure they don't outlive their savings. Immediate annuities are sold by insurance companies, mutual fund distributors and other financial services firms. Like other types of annuities, they're a hybrid of an insurance contract and an investment product.

They provide regularly scheduled payments for a specified period. For instance, state lotteries often purchase them to pay off big winners. Retirees who need a reliable source of income can deposit a lump sum in a fixed-rate immediate annuity and receive a regular check for life. What an immediate annuity does is provide reliable income--an important consideration when interest rates are plunging and retirees are seeing monthly income checks from money market funds and other fixed-income investments shrink.

For example, a husband and wife, both 65, want to receive a monthly check throughout both their lives. They could deposit $100,000 in a fixed-rate immediate annuity with a joint-survivor option and get a $650 monthly payment, guaranteed for life.

Exhibit 5 compares deferred annuities and immediate annuities.

Exhibit 5
Comparison between Deferred Annuity and Immediate Annuity

	Pros	***Cons***
Deferred annuity A pre-retirement savings vehicle that allows investment earnings to grow without being subject to yearly income taxes.	1. Investment earnings grow tax-deferred. 2. The original investment is protected, regardless of market performance. 3. It saves active investors from big annual tax bills on trading profits.	1. Money is locked up until retirement, with penalties for early withdrawal. 2. The comparatively high expenses can depress investment returns. 3. When withdrawn, profits are taxed at ordinary income tax rates rather than preferential capital gains rates.
Immediate annuity An investment, purchased with a lump sum at retirement that immediately begins paying the investor a monthly stipend.	1. The investor gets a guaranteed stream of income for life, regardless of market performance. 2. Long-lived retirees will get back vastly more than they invested.	1. The guaranteed returns are modest--usually 3% to 6% a year 2. Inflation will gradually erode the purchasing power of fixed monthly payments 3. No money is paid to heirs, regardless of how little of the original investment was distributed during the annuity holder's lifetime.

Conclusion

We all know that for most people Social Security benefits are not sufficient for their retirement needs. Retirement planning is a critical part of your financial plan. It should include consideration of future financial goals and needs as well as a sound savings plan to serve those goals and needs. There are different types of retirement plans: company pension plans, company-sponsored retirement plans, and qualified individual plans, such as IRAs, Roth IRAs, and Keoghs. The sooner you get started, the easier it will be to alter your plans to meet future retirement needs.

Websites

www.ssa.gov

Do you qualify for Social Security benefits, and if so, how much will you get? This is the SSA's Web site.

www.401k.com

Find useful retirement calculators, tools, and an asset allocation worksheet at Fidelity's 401(k) site.

www.prudential.com/retirement

www.cigna.com

These are just two examples of Websites that help you learn the features of retirement plans and determine your retirement needs using retirement planning tools and calculators.

www.help4srs.org

www.immediateannuities.com

Information on pros and cons of various types of annuities.

www.morningstar.com

To help investors manage their retirement investments—401(k), 403(b), and 457 plans and individual retirement arrangements.

Chapter 17 Review Questions

1. _____________ is NOT a type of pension and retirement plan:

A. Company sponsored pension plans
B. Qualified company retirement plans
C. Life insurance
D. Profit sharing plans

2. IRAs can be put to work by all except:

A. Certificates of deposit
B. Federal funds
C. Money market funds
D. Bond funds and gold funds

3. The Economic Growth and Tax Relief Reconciliation Act of 2001 gradually raises the amount employees can contribute via salary reduction to employer-sponsored retirement plans. True or False?

4. Annuities limit your financial freedom. True or False?

5. Annuities are NOT a means of saving for retirement. True or False?

6. When buying an annuity, you should shop around. True or False?

7. If you wish to retire with an annual annuity of $60,000 per year for 20 years and the interest rate is 10%, then the amount you need in your pension plan is:

A. $60,000
B. $510,816
C. $1,200,000
D. $425,680

Chapter 17 Review Answers

1. _____________ is NOT a type of pension and retirement plan:

A. Incorrect. Company sponsored pension plans are one of two major sources of retirement income.
B. Incorrect. One of two major sources of retirement income is a company-sponsored pension plan which includes qualified company retirement plans.
C. **Correct.** Life insurance is a protection needed for your dependents. Types of pension and retirement plans include: company-sponsored pension plans and individual retirement plans.
D. Incorrect. A profit sharing plan is a type of retirement plan. Unlike other qualified plans, you may not have to wait until retirement to receive distributions. Note: Since the company must contribute only when it earns a profit, the amount of benefit at retirement is highly uncertain.

2. IRAs can be put to work by all except:

A. Incorrect. CDs are one way, if not the most popular one, to put your IRA to work.
B. **Correct.** Federal funds are not an investment account, but funds deposited to regional Federal Reserve Banks by commercial banks, including funds in excess of reserve requirements.
C. Incorrect. Your IRA funds can be put in money market funds.
D. Incorrect. You can invest your IRA money in bond funds and gold funds.

3. The Economic Growth and Tax Relief Reconciliation Act of 2001 gradually raises the amount employees can contribute via salary reduction to employer-sponsored retirement plans. True or False?

True is correct. The annual limit for contributions to employer-sponsored retirement plans typically rises in $500 increments along with inflation.

False is incorrect. The law includes "catch-up" provisions that enable people age 50 and over to make additional contributions.

4. Annuities limit your financial freedom. True or False?

True is correct. One of the pitfalls of annuities is to limit your financial freedom. Withdrawals before 59 ½ may be subject to a 10% penalty on interest or any earnings, in addition to ordinary income tax.

False is incorrect. Other pitfalls of annuities include: The interest earned can be reduced by inflation or lag behind the return of other investments; Surrender charges if you decide to cash in the contract early.

5. Annuities are NOT a means of saving for retirement. True or False?

True is incorrect. Means of saving for retirement include: social security; employer pension plans; stocks and other assets; annuities.

False is correct. Annuities, variable or fixed, is an excellent way for retirement planning.

6. When buying an annuity, you should shop around. True or False?

True is correct. Here are some tips for buying an annuity: shop around; deal with a firm that is financially sound and strong; ask the sales representative about the company's investment performance; when considering variable annuities, select those that are well diversified.

False is incorrect. It pays to shop for rates and past performance.

7. If you wish to retire with an annual annuity of $60,000 per year for 20 years and the interest rate is 10%, then the amount you need in your pension plan is:

A. Incorrect. This is your retirement target income per year.
B. **Correct.** The amount you need in your pension plan to do that is: $60,000 x present value of ordinary annuity for n=20, i=10%: $60,000 x 8.5136 (from Table 4 in the Appendix)= $510,816
C. Incorrect. This is the total retirement income $1,200,000 = $60,000 per year x 20 years.
D. Incorrect. This is the amount you need in your pension plan to receive $50,000 per year: $50,000 x present value of ordinary annuity for n=20, i=10%: $50,000 x 8.514 (from Table 4 in the Appendix) = $425,680

Chapter 18:

Estate Planning

Learning Objectives

After reading this chapter you will be able to:

- State the objectives of estate planning.
- Identify different legal documents, such as a wills and living trusts.

A primary purpose of estate planning is to distribute your assets according to your wishes after your death. Successful estate planning transfers your assets to your beneficiaries quickly and with minimal tax consequences. The process of estate planning includes inventorying your assets and making a will or establishing a trust, with an emphasis on minimizing taxes. This chapter provides only a general overview of estate planning. Note: Estate planning is complex, so this chapter should not be viewed as tax advice. Consult with your attorney before changing your plan.

Estate Plans

The objectives of your estate plan will typically include the following:

- Simplifying the probate process for your estate.
- Providing your surviving family members with sufficient assets to maintain their lifestyle and pay for necessary expenses while your estate is in probate.
- Having a competent person, who is familiar with your family, manage the transfer of your property.
- Ensuring important financial and/or healthcare decisions are handled according to your wishes, if you become unable to do so.
- Providing input as to who will raise your children should you become unable to do so.
- Minimizing estate taxes.

Note: Probate is a legal process that usually involves filing a deceased person's will with the local probate court, taking an inventory and getting appraisals of the deceased's property, paying all legal debts, and eventually distributing the remaining assets and property.

Estate Planning Checklist

First, you have to ask yourself: Do you and your family members know the answers to the following questions? Here is a checklist of questions to be asked.

1. Can you locate your copies of last year's income tax returns?
2. Where is your safe deposit box located? Where is the key to it kept?
3. Do you know what kinds and amounts of life insurance protection you have?
4. Can you locate your insurance policies—life, health, property, casualty, and auto?
5. Do you know the names of the beneficiaries and contingent beneficiaries of your life insurance policies?
6. Do you know what type of health insurance protection you have and what the provisions of your health insurance policy are?
7. Do you and your spouse have current wills? Can you locate those wills, along with the name and address of the attorney who drafted them?
8. Do you have a separate record of the important papers you keep in your safe deposit box? Where is this record located?
9. Do you have a record of your spouse's Social Security number?
10. Can you locate your marriage certificate? The birth certificates of all the members of your family?
11. Do you know the name and address of your life insurance agent?
12. Do you have a clear understanding of what the principal financial resources and liabilities of your estate are?
13. Are you knowledgeable about simple, daily, and compound interest rates? About retirement funds and property ownership?
14. Have you given any thought to funerals and burial arrangements?
15. Do you know what papers and records will be important in the event of your death?
16. Can you explain the functions of a bank trust department, the meaning of joint ownership, and so forth?

Taking Stock

The first step in estate planning is to inventory everything you have and assign a value to each asset. Here's a list to get you started. You may need to delete some categories or add others.

- Residence
- Other real estate
- Savings (bank accounts, CDs, money markets)
- Investments (stocks, bonds, mutual funds)

- 401(k), IRA, pension and other retirement accounts
- Life insurance policies and annuities
- Ownership interest in a business
- Motor vehicles (cars, boats, planes)
- Jewelry
- Collectibles
- Other personal property

Exhibit 1 presents data needed for estate planning.

Exhibit 1
Data Required in Estate Planning

Personal data:	Names, addresses, phone numbers, family consultants, family birth dates, occupations, health problems, support needs, Citizenship, marital status, marital agreements, wills, trusts, custodianships, trust beneficiary, gifts or inheritances, social security numbers, education, and military service
Property (except life insurance or business):	Classification, title, indebtedness, basis, date and manner of acquisition, value of marketable securities, and location
Life Insurance:	Insured, kind of policies, amounts, insurance company, agents' names and addresses
Health Insurance	Medical expense insurance: insurance company, policy benefits, disability income
Business Interest:	Name, address, ownership Valuation factors: desired survivorship control; name, address, and phone number of business attorney and accountant
Employee benefits:	
Family Income:	Income of client, spouse, dependent children, income tax information
Family Finances	Budget information, investment preferences, ranking of economic objectives, capital needs, other objectives
Income and capital needs:	Retirement: age, required amount, potential sources. Disability: Required amount, sources Death: Expected sources of income
Liabilities:	Classification of liabilities, creditors, amounts, whether insured or secured
Factors affecting plan:	Gift propensity charitable inclinations, emotional maturity of children, basic desires for estate distribution
Authorization for Information:	Life Insurance
Receipt for documents:	Personal and business

Once you know the value of your estate, you're ready to do some planning. Keep in mind that estate planning is not a one-time job. There are a number of changes that may call for a review of your plan. Take a fresh look at your estate plan if:

- The value of your assets changes significantly.
- You marry, divorce or remarry.
- You have a child.
- You move to a different state.
- The executor of your will or the administrator of your trust dies or becomes incapacitated, or your relationship with that person changes significantly.
- One of your heirs dies or has a permanent change in health.
- The laws affecting your estate change.

Exhibit 2 is an executor's checklist.

Exhibit 2

Executor's Checklist of Items to Keep in a Safe-Deposit Box

Name (Testator)___________________________________ Date____________________

______ 1. Birth Certificate

______ 2. Marriage Certificates (including any prior marriages)

______ 3. Your Will (and spouses will) and Trust Agreements

______ 4. Listing of Life Insurance Policies or Certificates

______ 5. Your Social Security Numbers

______ 6. Military Discharge Papers

______ 7. Bonds, Stocks, and Securities

______ 8. Real Estate Deeds

______ 9. Business (Buy-Sell) Agreements

______ 10. Automobile Insurance Policies

______ 11. Property Insurance Policies

______ 12. Letter of Last Instructions

______ 13. Additional Documents

List all checking and saving account numbers, including bank addresses and location of safe deposit boxes:

__________________________ ________________________ ________________________

__________________________ ________________________ ________________________

List name, address and phone number of property and life insurance agents:

__________________________ ________________________ ________________________

__________________________ ________________________ ________________________

List name, address, and phone number of attorney and accountant:

List name, address and phone number of (current or past) employer. State date when you retired if applicable. Include employee benefits booklets:

List all debts owed to and owed by you:

List all names, addresses, telephone numbers and birth dates of your children and other beneficiaries (including charitable beneficiaries):

Wills

The simplest way to ensure that your funds, property and personal effects will be distributed after your death according to your wishes is to prepare a will. A will is a legal document designating the transfer of your property and assets after you die. Usually, wills can be written by any person over the age of 18 who is mentally capable, commonly stated as "being of sound mind and memory." Your state may impose additional requirements.

Without a will to indicate your wishes, the court steps in and distributes your property according to the laws of your state. Wills are not just for the rich; the amount of property you have is irrelevant. A will ensures that what assets you do have will be given to family members or other beneficiaries you designate. If you have no apparent heirs and die without a will, it's even possible the state may claim your estate.

Elements of a Will

Here are the basic elements generally included in a will:

- Your name and place of residence
- A brief description of your assets
- Names of spouse, children and other beneficiaries, such as charities or friends
- Alternate beneficiaries, in the event a beneficiary dies before you do
- Specific gifts, such as an auto or residence
- Establishment of trusts, if desired
- Cancellation of debts owed to you, if desired
- Name of an executor to manage the estate
- Name of a guardian for minor children
- Name of an alternative guardian, in the event your first choice is unable or unwilling to act
- Your signature
- Witnesses' signatures

Two of the most important items included in your will are naming a guardian for minor children and naming an executor.

Naming a Guardian

In most cases, a surviving parent assumes the role of sole guardian. However, it's important to name a guardian for minor children in your will in case neither you nor your spouse is able and willing to act. The guardian you choose should be over 18 and willing to assume the responsibility. If you do not name a guardian to care for your children, a judge will appoint one, and it may not be someone you would have chosen.

Naming an Executor

An executor is the person who oversees the distribution of your assets in accordance with your will. Most people choose their spouse, an adult child, a relative, a friend, a trust company or an attorney to fulfill this duty. You should expect your estate to pay an independent executor for this service.

If no executor is named in a will, a probate judge will appoint one. Probate refers to the legal procedure for the orderly distribution of property in a person's estate. The executor files the will in probate court, where a judge decides if the will is valid. If it is found to be valid, assets are distributed according to the will. If the will is found to be invalid, assets are distributed in accordance with state laws.

Responsibilities usually undertaken by an executor include:

- Paying valid creditors
- Paying taxes

- Notifying Social Security and other agencies and companies of the death
- Canceling credit cards, other accounts, subscriptions, etc.
- Distributing assets according to the will

Preparing a Will

Start by organizing what you need: outline your objectives, inventory your assets, estimate your outstanding debts and prepare a list of family members and other beneficiaries. Use this information to carefully consider how you want to distribute your assets. Ask yourself lots of questions: Is it important to pass my property to my heirs in the most tax-efficient manner? Do I need to establish a trust to provide for my spouse or other beneficiaries? How much money will my grandchild need for college? Do I need to provide for a child who has a disability?

Taking inventory of the assets may be the key to making a will. Assets should be mentioned in your will. Any items not specifically mentioned may be addressed in a catchall clause of your will called a residuary clause, which generally states, "I give the remainder of my estate to ..." Without this clause, items not specifically mentioned will be distributed in accordance with state law.

Outstanding debts usually will be paid by your estate before your beneficiaries receive their shares. You may want to clear up debts that you know will be a problem, or make specific provisions for payment of those debts in your will.

States require that you sign the will in front of witnesses-the number of witnesses varies by state. A witness should not be a beneficiary under the will. Only one copy should be signed.

Updating a Will

You'll probably need to update your will several times during the course of your life. For example, a change in marital status, the birth of a child or a move to a new state should all prompt a review of your will. You can update your will by amending it by way of a codicil or by drawing up a new one. Generally, people choose to issue a new will that supersedes the old document. Be sure to sign the new will and have it witnessed, then destroy the old one.

Where to Keep Your Will

Once your will is written, store it in a safe place that is accessible to others after your death. If you name a trust company as executor, it will hold your will in safekeeping. You can keep it in your safe deposit box, but be aware that some states will seal your safe deposit box upon your death, so this may not always be the safest place to store your will. Make sure a close friend or relative knows where to find your will. If you had an attorney prepare your will, have him or her retain a copy with a note stating where the original can be found.

A Living Will

A living will is not a part of your will. It is a separate document that lets your family members know what type of care you do or don't want to receive should you become terminally ill or permanently unconscious. It becomes effective only when you cannot express your wishes yourself. If your state recognizes a power of attorney for health care, have one executed to authorize someone to act in accordance with your present intentions.

Living Trusts

The probate process can be costly and time-consuming. Many states have simplified probate for estates below a certain amount, but that amount varies among states. If an estate meets the state's requirements for "expedited" or "unsupervised" probate, the process is faster and less costly.

A living trust, created while you're alive, lets you control the distribution of your estate. You transfer ownership of your property and your assets into the trust. You can serve as the trustee or you can select a person or an institution to be the trustee. If you're the trustee, you will have to name a successor trustee to distribute the assets at your death.

The advantage of a living trust is that, if properly drafted and executed, it can avoid probate because the trust owns the assets, not the deceased. Only property in the deceased's name must go through probate. The downside is that poorly drawn or unfunded trusts can cost you money and endanger your best intentions.

Note: A living trust is different from a living will. A living will expresses your wishes about being kept alive if you're terminally ill or seriously injured.

Estate Taxation

The basic federal estate-tax exclusion amount for estates of people who die in 2013 is $5,250,000, the Internal Revenue Service announced recently, up from $5,120,000 in 2012.

The federal estate-tax exclusion now is set permanently at $5 million and is indexed for inflation, But because of inflation, the amount for 2013 works out to $5,250,000.

The federal gift and generation-skipping transfer tax exemption is the same as the estate-tax exclusion amount, she says. The top federal estate-tax rate on the largest estates is now 40%, up from 35% in 2012. Transfers from one spouse to the other typically are tax-free.

Under the new law, portability became permanent. Portability effectively makes the federal estate-tax exclusion amount "portable" between a husband and wife. When one spouse dies, the other typically can get the deceased spouse's unused exemption amount without having to set up trusts or other tax-saving maneuvers.

Even if your estate falls below the federal threshold, don't automatically ignore the subject. With the increasing federal estate-tax exclusion, there will be an increased focus on state estate taxes in states which impose an estate tax.

Adding up your own assets can be an eye-opening experience. By the time you account for your home, investments, retirement savings and life insurance policies, you may find your estate in the taxable category.

Even if your estate is not likely to be subject to federal estate taxes, estate planning may be necessary to be sure your intentions for disposition of your assets are carried out.

Exhibit 3 provides a form for estate tax projection and settlement costs.

Exhibit 3
Estate Tax Projection and Settlement Costs

Gross Estate Values		
Personal Property	$______________	
Real Estate	$______________	
Joint ownership	$______________	
Business Interests	$______________	
Life Insurance	$______________	
Employee Benefits	$______________	
Controlled gifts/trusts	$______________	
Prior taxable gifts	$______________	
Total Estate Values		$____________
Deductible debt, costs, expenses		
Mortgages and secured loans	$______________	
Unsecured notes and loans	$______________	
Bills and accounts payable	$______________	
Funeral and medical expenses	$______________	
Probate administrative costs	$______________	
Total Deductions		
Marital deduction	$_____________	
Taxable estate		-$_____________
		-$_____________
GROSS ESTATE TAX*		=$_____________
Allowable credits		
Unified credit		
Gift tax credit		$______________
State tax credit	$______________	

Foreign tax credit Prior tax credits Total tax credit NET ESTATE TAX	$_______________ $_______________ $_______________	 -$_____________ $_____________

* Consult the Internal Revenue Service for current rates and regulations related to real estate taxes.

Estate Planning Team

If you have a more complex estate and many assets to bequeath, your estate planning team can consist of several people:

- **Estate-planning attorney**: A lawyer will be able to create a trust, draft a will, a durable power of attorney, medical power of attorney and a living will.
- **Financial planner**: A planner should have an overall perspective of your financial situation and understand your wishes for your estate.
- **Certified public accountant**: A good accountant can minimize the tax ramifications of your plan.
- **Insurance agent**: An insurance agent should be familiar with estate-planning concepts, such as an irrevocable insurance trust.

No one should attempt estate planning without including an attorney.

Chapter 18 Review Questions

1. One of the objectives of estate planning is to provide for family members. True or False?

2. Items to be inventoried in estate planning do NOT include ownership interest in a business. True or False?

3. Travel arrangements must be on personal data sheet required in estate planning. True or False?

4. The advantage of a living trust is that, if properly drafted and executed, it can avoid probate because the trust owns the assets, not the deceased. True or False?

5. A "living will":

A. Is part of your will.
B. Becomes effective only when you cannot express your wishes yourself.
C. Is a document for probate.
D. Is a transfer of your assets while still alive.

6. Under current law, estate tax planning is appropriate if the value of your taxable estate exceeds the "estate tax exclusion amount" of $2 million. True or False?

Chapter 18 Review Answers

1. One of the objectives of estate planning is to provide for family members. True or False?

    True is correct. Providing your surviving family members with sufficient assets to maintain their lifestyle and pay for necessary expenses while your estate is in probate is a major goal of estate planning.

    False is incorrect. The objectives of your estate plan will typically include the following: Provide for surviving family; Minimizing estate taxes; Simplifying the probate process for your estate; Having a competent person, who is familiar with your family, manage the transfer of your property.

2. Items to be inventoried in estate planning do NOT include ownership interest in a business. True or False?

    True is incorrect. The first step in estate planning is to inventory everything you have and assign a value to each asset. The assets include motor vehicles (cars, boats, planes), residence and other real estate, and ownership interest in a business.

    False is correct. Your ownership interest is also your asset that needs to be distributed according your wish.

3. Travel arrangements must be on personal data sheet required in estate planning. True or False?

    True is incorrect Personal data required in estate planning can include: names, addresses, phone numbers, family consultants, family birth dates, occupations, health problems, support needs, citizenship, marital status, marital agreements, wills, trusts, custodianships, trust beneficiary, gifts or inheritances, social security numbers, education, and military service.

    False is correct. Travel arrangements do not affect your surviving family's interests and therefore do not need to be on the personal data sheet.

4. The advantage of a living trust is that, if properly drafted and executed, it can avoid probate because the trust owns the assets, not the deceased. True or False?

    True is correct. The probate process can be costly and time-consuming. A living trust can avoid probate because the trust owns the assets, not the deceased.

False is incorrect. Only property in the deceased's name must go through probate. The downside is that poorly drawn or unfunded trusts can cost you money and endanger your best intentions.

5. A “living will”:

A. Incorrect. A living will is not a part of your will. It is a separate document that lets your family members know what type of care you do or don't want to receive should you become terminally ill or permanently unconscious.
B. **Correct.** A living will expresses your wishes about being kept alive if you're terminally ill or seriously injured. If your state recognizes a power of attorney for health care, have one executed to authorize someone to act in accordance with your present intentions.
C. Incorrect. A living will is a type of will, not a document for probate.
D. Incorrect. A living will becomes effective only when you cannot express your wishes yourself. A living trust, created while you're alive, lets you control the distribution of your estate.

6. Under current law, estate tax planning is appropriate if the value of your taxable estate exceeds the “estate tax exclusion amount” of $2 million. True or False?

True is incorrect. Under current law, estate tax planning is appropriate if the value of your taxable estate exceeds the “estate tax exclusion amount”. An estate tax return for a U.S. citizen or resident needs to be filed only if the gross estate exceeds $5.25 million for decedents dying during 2013.

False is correct. This is a year 2006 figure.

Glossary

12(b)-1 fee: a type of fee that's charged annually and which is supposed to be used to offset the promotion and selling expenses of a mutual fund; known as a hidden load because it's often used by funds as an indirect way of charging commissions.

30-Day charge account: charge account which requires the customer to pay the full amount billed within 30 days after the billing.

Acceleration clause: a clause in a credit contract or mortgage that states that if the borrower does not meet the payment schedule, all remaining payments may become immediately due.

Actual cash value (ACV): replacement cost less depreciation.

Actuarial method: a method which uses one-twelfth of the annual percentage rate (APR) to figure the amount of interest to credit to a borrower when a loan is retired early.

Add-on method: a method for calculating loan payments in which the interest is figured on and then added to the amount to be financed.

Adjustable rate mortgage (ARM): a mortgage on which the interest rate can change prior to maturity, depending on the changes of a particular fund cost index.

Adjustment period: In an adjustable-rate mortgage, the period of time between one rate/payment change and the next.

Administrator: the individual appointed by the court to handle an estate.

Advisory letters: specialized newsletters on various investment media that are typically high in cost.

Aggressive growth fund: a mutual fund that aims for a greater return by accepting greater investment risk, either by investing in new or small companies or by using speculative techniques in its investment strategy.

Annual percentage rate (APR): a measure of the total cost of the loan, expressed as a yearly percentage rate. This method of calculating interest rates is required by the Federal Consumer Protection Act (Truth-in-Lending Act); also called effective annual yield.

Annuitant: a person who receives regular annuity benefits.

Annuity: a contract that guarantees a fixed income to the annuitant and other beneficiaries of the annuity for life, or for a specified period of years.

Ask price: the price at which one can purchase a security.

Assessed value: the value assigned property for tax purposes, generally a percentage of the appraised value. Assets the items of value that a person owns, such as cash, auto, and stocks.

Asset allocation: a plan for dividing a portfolio among different classes of securities in order to preserve capital by protecting the portfolio against negative market development.

Asset management account (AMA): a comprehensive deposit account, offered primarily by brokerage houses and mutual funds, that combines checking, investing, and borrowing activities and automatically sweeps excess funds into short-term investments and provides loans when shortages exist.

Assumption: the ability of a new buyer to take over the seller's old mortgage, typically at the original rate.

Automated teller machine (ATM): a type of remote computer terminal at which customers of a bank or other depository institution can make basic transactions 24 hours a day, seven days a week.

Automatic reinvestment plan: a plan frequently offered by mutual funds that allows share owners to elect to have dividends and capital gains distributions reinvested in additional fund shares.

Automobile insurance: insurance purchased to pay for the loss to individuals or to property, resulting from an automobile accident, theft, or other perils specified in the insurance contract.

Average daily balance (ADB): a method for determining the balance on which interest is to be paid. The figure is calculated by averaging the daily balance throughout the month.

Back-end load: a commission charged for redeeming mutual fund shares.

Balanced fund: a mutual fund that stresses income over growth.

Balloon clause: a final payment specified in a loan agreement.

Balloon payment: see Balloon clause.

Balloon-note mortgage: a mortgage that carries a fixed rate of interest and is written like a conventional mortgage but for a short period of time, for example, 3 to 5 years.

Bank credit card: a credit card issued by a bank or other financial lending institution that allows the holder to charge purchases at any establishment that accepts it; can also be used to obtain cash advances.

Bankruptcy: a court action that involves taking some of a debtor's assets, selling them, and dividing the proceeds among the creditors.

Basic disability: a definition in a disability insurance policy that describes the insured as unable to perform the duties of his or her regular occupation.

Bearer (coupon) certificate: a certificate that does not have the name of the owner on it. Payment of interest is made to whomever presents the coupon.

Beneficiaries: those who are to receive the proceeds from a policy or estate at the time of an individual's death.

Beta: an index of the price volatility imbedded in a share of common stock; provides a reflection of how the price of a share of stock responds to market forces.

Better Business Bureau (BBB): a local agency supported by business organizations that helps to resolve problems between businesses and customers.

Bid price: The price at which one can sell a security.

Blank endorsement: the signature of only the payee's name on the back of the check.

Blue Cross/Blue Shield plans: prepaid hospital and medical expense plans under which health care services are provided to plan participants by member hospitals and physicians.

Blue-chip stocks: stocks of major companies that are leaders in their industry and have a proven track record of earnings and dividend payments.

Bodily injury liability losses: a clause in an auto insurance policy that protects individuals against losses from bodily injury; may specify coverage as a combination of per-individual and per-accident limits.

Bond fund: mutual funds that invest primarily in bonds in order to emphasize current income.

Budget: detailed guideline for spending over a short period of time.

Call option: the right to buy a fixed, number of shares of a stock at a predetermined price over a stated period of time.

Call provision: a provision of a security issue that allows the issuer to redeem the outstanding securities for a predetermined value before maturity.

Capital gain: the profit received from the sale of a capital asset at a price higher than the original cost.

Capital loss: the loss resulting from the sale or exchange of a capital asset at a price below the original cost.

Capitalized cost: the price of a car that is being leased.

Cash advances: a loan that can be obtained by a bank credit cardholder at any participating bank or financial institution; it begins to accrue interest immediately and requires no formal application.

Cash flow statement: compilation of cash receipts and disbursements used to develop the monthly budget.

Cash value insurance: life insurance protection that provides death benefits and a savings feature.

Cash value: the accumulated portion of life insurance premiums as a savings feature that can be borrowed against or obtained as cash if the policy is canceled.

Cashier's check: a check from a depository institution made out to a specified person for a specified amount.

Certificate of deposit (CD): a term account paying a slightly higher rate of interest than passbook or other savings, with a penalty for early withdrawal.

Certified check: a check from an individual's own checking account ' that has been completely filled out and certified by the depository institution. The certification guarantees the validity of the signature and the amount of the check.

Chapter 13: a court approved and coordinated plan that pays off an individual's debts over a period of 3 years; also known as the wage earner plan.

Chapter 7: see Straight bankruptcy.

Chartered Property and Casualty Underwriter (CPCU): an agent who has met various experience and educational requirements and passed a series of written examinations in the fields of property and liability insurance.

Check truncation: the procedure whereby depository institutions keep the canceled checks and send only a listing of the month's activities to the account holder, thus saving on processing and mailing of checks.

Checking account: an account that allows the depositor to transfer funds to another party through a written order, a demand deposit, or a check.

Claims adjustor: an insurance specialist, employed by an insurance company, an adjustment bureau, or self-employed, who investigates claims.

Cleaning deposit: a nonrefundable fee paid to cover the painting and cleaning of a rental unit after a tenant moves out.

Closed-end account: a credit account that allows the customer to use the extended credit only once, usually to make a specific purchase.

Closed-end investment company: an investment company that issues a limited number of shares.

Closed-end lease: a lease that entails monthly payments over a specified period of time. At the end of the leasing period, the lessor sells the leased item and bears any gain or loss from the entire transaction.

Closing costs: costs resulting from the financing and transfer of property ownership in a real estate sale.

Codicil: a document amending a will

Coinsurance factor: the percentage of medical expenses covered by the insured over and above the deductible amount.

Collateral: an asset that is used to secure a loan.

Collectible: an item collected for its value or enjoyment.

Collision insurance: insurance purchased to pay for damages to one's own car in case of an accident.

Commercial bank: a depository institution commonly referred to as a bank, with stockholders as owners and an elected board of directors.

Common stock: a security that represents ownership in a corporation, and typically having voting rights.

Community property: property held jointly by husband and wife. If acquired after the marriage it is considered to be owned equally by both spouses, no matter who contributes the earnings to pay for the property.

Compounding: the process of earning interest on the interest already earned on an investment. Compound interest is earned when the interest is left to accumulate.

Comprehensive insurance: insurance purchased to cover losses resulting from a stolen car, or from repairs if the car is hit by a falling object, or damaged by fire, flood, or vandals.

Comprehensive major medical insurance: a health care insurance plan that combines into a single policy, basic hospital, surgical, and physician's expense coverage with major medical protection.

Condominium: a form of home ownership in which each individual owns the interior living space in a planned community.

Conforming loans: loans that adhere to national guidelines by Fannie Mae and Freddie Mac, who buy the loans on the secondary market.

Consolidated liability plan: liability coverage in automobile insurance that sets a specific dollar amount as the maximum that would be paid for all losses resulting from a liability claim.

Consumer credit counseling service: a nonprofit organization that provides several inexpensive services to assist consumers with financial difficulties in getting back on their feet.

Consumer Credit Protection Act: a federal act that includes the Fair Credit Billing, Equal Credit Opportunity, Fair Credit Reporting, Consumer Leasing Acts, and the Truth-in-Lending Act.

Consumer Price Index (CPI): a price index that measures the changes in the cost of a specific "market basket" of goods and services. The CPI measures the cost of living.

Conventional mortgage: a mortgage that requires a large down payment, is typically only available to good credit risks, and has fixed monthly payments, including principal and interest for the life of the loan.

Convertible bonds: bonds that may be converted into a predesignated number of shares of common stock.

Convertible stock: preferred stock that may be converted into common stock.

Cooling off ruling: a federal rule that provides a buyer with 3 business days in which to cancel a door-to-door sales contract.

Cooperative: a form of home ownership that entails issuing stock and then leasing dwelling units to each stockholder.

Corporate bond: a debt instrument of a corporation. It is a corporate IOU. It represents an agreement that the face value of the loan will be repaid at maturity and that interest will be paid at regular intervals.

Coupon rate: the interest rate of a bond as a percent of the face value.

Credit bureau: an organization that supplies credit information to creditors and to others who demonstrate an acceptable need for the information.

Credit counselor: a professional financial advisor who assists overextended consumers in repairing budgets for both spending and debt repayment.

Credit health and accident insurance: insurance purchased as payment protection for a loan in case the borrower is unable to meet the payments due to a disability or illness.

Credit life insurance: insurance that will retire a loan if the borrower dies.

Credit limit: A specified amount beyond which a customer may not borrow or purchase on credit.

Credit: loans extended to businesses, individuals, or the government.

Credit or consumer report: a report from a credit bureau describing an individual's credit history and providing other information such as name, address, length of time at an address, occupation (past and present), public record, and similar background material.

Credit property insurance: insurance purchased to compensate the lender if property placed as security for a loan is destroyed.

Credit record: an individual's credit history.

Credit scoring: an objective method for evaluating whether an individual should be extended credit.

Credit statement: a monthly statement that summarizes the transactions in a consumer credit account; includes a record of new charges, credits, and payments, any interest charges, and the minimum monthly payment required on the account.

Credit union: a depository institution formed as a cooperative. Individuals interested in membership may have to meet specific credit union requirements.

Creditor: the person or institution to whom money is owed.

Cumulative dividends: preferred dividends which if not paid as scheduled must be paid before any common stock dividends can be paid.

Current yield: the measurement of return that relates investment income to the market price.

Custodian: the individual who retains control of and manages property.

Cyclical stock: stock that fluctuates with changes in business conditions, improving its position when the economy is on an upswing and failing during times of decline.

Damage deposit: a fee paid to cover any physical damage beyond normal wear and tear, or any economic damage beyond normal wear and tear, or any economic damage such as failure to pay rent, caused by a tenant or a tenant's guests.

Day-of-deposit-to-day-of-withdrawal (DDDW): a method of calculating the account balance on which interest is earned. Interest is calculated on the actual number of days the money is deposited in the account.

Dead days: days appearing at the end of an interest period during which the bank will allow funds to earn interest even though they are not actually on deposit (typically a maximum of 10 days).

Debentures: unsecured bonds that carry no claim against any specified assets.

Debit card: a card issued for making electronic transfers of funds in stores, depository institutions, and other businesses.

Debt consolidation loans: loans that combine all of a person's debts into one loan with small monthly payments. The tremendously high rate of interest for the new loan greatly increases the total cost of the credit although the monthly payment may be lower than the sum of all the former payments.

Debt safety ratio: the proportion of total monthly consumer credit obligations to monthly take-home pay.

Decreasing term insurance: term insurance that provides decreasing death benefits while maintaining a stable premium.

Deductible: the amount that an individual must pay on any insured loss before payment by the insurance company begins.

Deduction: an expenditure listed on the federal tax return that reduces adjusted gross income in order to arrive at taxable income.

Deed: a detailed description of a piece of property that formally transfers the title of the property over to the buyer.

Default: failure to meet the conditions of a loan. It generally refers to the failure to meet the loan payments as scheduled.

Defensive stock: a stock that has relatively stable prices during business downturns and market declines.

Defined benefits plan: a pension plan in which the formula for computing benefits is stipulated in its provisions, thus allowing the employee to determine prior to retirement how much his or her retirement income will be.

Defined contribution plan: a pension plan that specifies a certain plan contribution but not future benefits.

Dental insurance: insurance to pay for dental care, typically including preventive expense.

Deposit insurance: insurance on certain depository institution accounts provided by either a federal or a state agency.

Depreciation: in real estate appraisal, the decrease in value of property due to use, deterioration, or the passing of time. The cost of wear and tear.

Derivative securities: securities, such as futures and options, whose value is derived from (or linked to) the price behavior of an underlying real or financial asset.

Disability insurance :insurance to provide income to the insured in the event of disability.

Discount: a reduction in the amount paid for an item. As for investments, it is a security that sells for less than its face value.

Discount broker: a broker with low overhead who charges low commissions and offers little or no services to investors.

Discount interest: a method for calculating the interest charged on a loan wherein the lender subtracts the interest from the principal amount and lends the borrower the difference, to be repaid in installments.

Discount rate: the interest rate charged to financial institutions for loans by the Federal Reserve Bank.

Disposable income: income left after deducting taxes from gross income.

Diversification: the spreading of investment money among many investment vehicles in order to reduce overall risk.

Dividend reinvestment: dividends that an investor reinvests in the company or mutual fund through the purchase of additional shares. A mutual fund does not charge a sales commission on reinvested dividends.

Dividend reinvestment plan (DRP): a program offered by over 1,000 major corporations whereby stockholders can choose to take their dividends in the form of more shares of the company's stock, rather than cash; it provides a relatively painless way of earning a fully compounded rate of return.

Dividend yield: The percentage return provided by the dividends paid on common stock; calculated by dividing the cash dividends paid during the year by the stock's market price.

Dividend: the portion of a corporation's profits paid to stockholders.

Dollar cost averaging: the regular investment of a specified amount in a stock or mutual fund.

Double or triple indemnity: a life insurance rider that pays the beneficiary two or three times the policy's face value if the death of the insured is due to an accident.

Dow Jones Industrial Average (DJ1A): a price-weighted average of 30 stocks that attempts to show the general movement of the stock market.

Down payment: the cash a borrower puts toward a purchase, with the remainder of the purchase price borrowed from a creditor.

Dread disease insurance: a health insurance policy that provides protection against medical expenses resulting from a certain dreaded disease such as cancer.

Due-on-sale clause: a clause permitting the lender to raise the interest rate or require full payment of the mortgage at the time of assumption.

Duplexes: two living units placed side by side in one building.

Durable power of attorney: a legal device that allows individuals to grant to other persons general or specific powers for managing their finances.

Earnest money: deposit money pledged by a buyer to show good faith when making an offer to buy a home.

Earnings per share (EPS): the earnings figure divided by the number of outstanding shares of common stock.

Easy money: an increase in the amount of money available for business and individual spending as a result of economic conditions.

Economic risk: the chance of loss due to economic conditions.

Effective annual yield: see Annual percentage yield.

Electronic fund transfer: the transfer of funds through a computerized banking system. It will eliminate much of paper handling involved with cash, checking account, and credit card systems.

Elimination period: the period of time before insurance begins.

Emergency fund: money kept at maximum liquidity in order to have access to cash for unexpected situations.

Employee Retirement Income Security Act (ERISA): a law passed in 1974 to ensure that workers eligible for pensions actually receive such benefits; also permits uncovered workers to establish individual tax-sheltered retirement plans. Also known as the Pension Reform Act.

Employee Retirement Income Security Act: Federal legislation that provides protection to workers who are covered by private retirement plans.

Endowment policy: a cash value life insurance policy that assesses premiums over a specified period of time. At the end of that time, the cash value equals the face value, the policy endows, and is redeemed.

Energy labels: labels attached to certain appliances that give operation costs and energy information.

Equal Credit Opportunity Act: a federal act prohibiting discrimination in lending.

Equity REIT: a type of REIT whose investment money is directed toward the purchase of a portfolio of identified properties to be managed for the purpose of producing investment return through current income as well as capital gains.

Equity: The ownership value of a business. In reference to real estate, the portion of a property owned by an individual, that is, the market value of the property less any amount owed on the property.

Escrow account: an account to which payment is made for a specified expense to ensure that funds will be available.

Estate planning: the creation of wealth and conservation of assets so that an individual will reap the greatest benefit from their use.

Estate tax: a tax levied by federal and/or state governments on the value of certain types of gifts (or an estate) made upon the giver's death.

ETFs: mutual funds that change hands all day long on an exchange, just like stocks -- which is very different from the once-a-day trading of ordinary mutual funds.

Eviction: the action taken by a landlord to remove a tenant from leased property.

Excess major medical policy: medical insurance that provides coverage over and above the benefits of a major medical policy.

Excise taxes: taxes levied at the point of sale on the purchase of certain items and services, such as automobiles, gasoline, telephone services, tobacco products, and liquor.

Exclusive listing: an agreement with a real estate agent that pays commission to the agent even if the property is sold to a buyer found by the owner.

Exclusive provider organization (EPO): health plan that reimburses members only if they use affiliated providers.

Executor: a person appointed in a will to handle the disposition of the estate according to the will's directives.

Exemption: when filing a tax return the amount deductible from income that each taxpayer is allowed for oneself, a spouse, and each dependent, plus an additional deduction for each person who is blind and over 65.

Face value: 1. a security's value at maturity. 2. the maximum coverage available on an insurance policy.

FAIR program :an insurance program sponsored by the federal government for individuals who are unable to obtain insurance through the marketplace.

Fair Credit Billing Act: a federal law providing credit cardholders certain rights in case of billing errors.

Fair Credit Reporting Act (FCRA): a federal law passed to control the use of credit and investigative reports.

Fair Debt Collection Practices Act: a federal act regulating professional bill collectors and their actions.

Family of funds: a group of mutual funds, all with different investment objectives, that are under the same management company.

Farmers Home Administration: a federal agency that offers home financing to qualified individuals in low-income rural areas.

Federal agency securities: debt investments issued by federal government agencies that are backed either by the full faith and credit of the agency or by the federal government itself.

Federal Deposit Insurance Corporation (FDIC): the federal agency that insures depository institution accounts.

Federal estate tax: the federal tax that must be paid by a decedent's estate.

Federal Housing Administration (FHA): a federal agency that provides financing opportunities for home buyers, especially those with little down payment funds or with a need for smaller monthly payments.

Federal Insurance Administration: a federal agency that sponsors crime insurance for families living in high crime areas.

Federal Insurance Contributions Act (FICA) social security tax: the law establishing the combined old-age, survivor's, disability, and hospital insurance tax levied on both employer and employee, also called social security tax.

Federal Reserve System: the central bank of the United States. Its primary function is to control the money supply and financial markets.

Federal Savings and Loan Insurance Corporation (FSLIC): the federal agency that provides deposit insurance to savings and loan associations.

Federal Trade Commission (FTC): a federal agency responsible for policing unfair trade practices.

FICO: short for Fair Isaac and Company, which develops the mathematical formulas used to produce credit scores. Every score is calculated by using a mathematical formula that evaluates many types of information on your credit report, compared to information patterns in millions of past credit files. The score can then identify your level of future credit risk. Credit scores range from 300 to 850. Scores provide an extremely valuable guide to future risk based solely on credit report data. The higher the consumer's score, the lower the risk to lenders when extending new credit to a consumer.

Filing status: status indicated on the tax return to show whether the taxpayer is filing a return as a single, married (filing jointly or separately), or head of household taxpayer.

Finance charge: the total dollar amount paid when obtaining a loan or charging a purchase.

Finance companies: companies that primarily make smaller loans at higher interest rates than competitive institutions because they will accept individuals with lower than average credit ratings.

Financial advisor: a business person who sells a particular product and financial advice or one who sells only financial advice.

Financial assets: intangible assets, such as savings accounts and securities, that are acquired for some promised future return.

Financial crisis: A situation in which the supply of money is outpaced by the demand for money. This means that liquidity is quickly evaporated because available money is withdrawn from banks (called a run), forcing banks either to sell other investments to make up for the shortfall or to collapse. The global financial crisis of 2008–2009 emerged in September 2008 with the failure, merger, or conservatorship of several large U.S.-based financial institutions, such as investment banks, insurance firms, and mortgage banks, consequent to the subprime mortgage crisis and spread with the insolvency of additional companies, governments in Europe, recession, and declining stock market prices around the globe.

Financial goals: Short-and long-term results that an individual wants to attain, such as controlling living expenses, managing one's tax burden, establishing savings and investment programs, and meeting retirement needs.

Financial needs approach: a method for calculating life insurance needs, which bases the amount of insurance protection on the goals, net worth, and projected income and expense figures of the insured.

Financial responsibility laws: laws that attempt to force motorists to be financially responsible for the damages they cause, and are legally obligated to pay, as a result of automobile accidents.

Financial risk: the chance of loss resulting from business difficulties of the issuer.

Financial tables: tables found in most daily newspapers, to provide price yield and volume information on secondary markets. Extensive listings appear in The Wall Street Journal.

First-in, first-out (FIFO): a method for calculating the account balance on which interest is earned. In this case, interest is earned on any balance remaining after deducting all withdrawals from the deposits available at the beginning of the interest period.

Fiscal policies: an economic policy that employs government spending and taxation programs.

Fixed rate annuity: an annuity in which the insurance company safeguards your principal and agrees to pay a guaranteed rate of interest on your money; in addition, the (minimum) monthly benefit is set by the contract.

Fixed-income investment: an investment that promises to pay a specified amount of income on a periodic basis, such as a bond.

Fixed-rate mortgage: the traditional type of mortgage, in which both the rate of interest and the monthly mortgage payment are fixed over the full term of the loan.

Floater endorsement: an addition to a policy that itemizes specific item(s) for insurance protection under the, endorsement.

Freddie Macs: nickname for Federal Home Loan Mortgage Corporation (FHLMC) securities. The FHLMC buys mortgages, pools them, and then sells the packages to individual investors.

Fringe benefits: legislated or employer-provided benefits that exceed wages.

Full replacement policy: a homeowner's policy that will replace, rebuild, or repair damaged property for up to the maximum of the policy, which is set at a value equal to what is estimated as the cost of replacing the property.

Full service brokerage house: a brokerage house that provides research reports, investment advice, and a broker to act as a sounding board for ideas.

Full warranty: the term used to describe warranties that meet certain requirements of the Magnusson-Woss Warranty Act and offer the best warranty protection available.

Funded pension plan: a pension plan that formally establishes charges against current income to allow for pension liabilities as they accrue in order to minimize the risk that benefits will be unavailable to an eligible employee upon retirement.

Funds from operations (FFOs): Net income plus depreciation and before any extraordinary items. It is a measure of cash flow used to value real estate investment trusts (REITs). This measure is not currently audited or recognized by Generally Accepted Accounting Principles (GAAP).

Futures: contract a contract to buy or sell a given commodity on a future date for a predetermined price.

Futures market: the market that handles futures contracts.

Garnishment: court-ordered payment of a portion of a defaulting borrower's wages to a lender.

General obligation: bond a municipal bond that has the payment of the bond interest and principal backed up by the full faith and credit of the issuing government.

Gift splitting: a method of reducing gift taxes whereby a gift given by one spouse, with the consent of his or her spouse, can be treated as if each had given one-half of it.

Gift tax: a tax levied by the federal government on the value of certain types of gifts made during the giver's lifetime.

Ginnie Maes: nickname for Government National Mortgage Association (GNMA) securities, which are issued by approved organizations that pool their FHA or VA backed mortgages and then sell them as a package to investors.

Goals: specific objectives for which a person aims and that are based on the person's values.

Grace days: days appearing at the beginning of an interest period during which a depository institution will allow its funds to earn interest even though the funds are not actually on deposit.

Grace period: the 30-day period allowed on life and health insurance policies, which maintains the policy coverage although the premium has not yet been paid.

Graduated payment mortgage :a mortgage that carries a fixed rate of interest for the life of the mortgage; however, the payments are not fixed but instead slowly increase to a fixed amount that is maintained until the end of the loan period.

Grantor: the person setting up a trust.

Gross estate: all property—both probate and nonprobate—subject to federal estate taxes at a person's death.

Group health care insurance: a type of health care insurance consisting of contracts written between a group (employer, union, and so forth) and either a private insurance company, Blue Cross/Blue Shield, or managed care organization.

Group life insurance: a type of life insurance that provides a master policy for a group and a certificate of insurance for each eligible member.

Growth and income fund: a mutual fund that attempts to provide regular dividends along with capital gains by investing in bonds and quality stocks.

Growth fund: a mutual fund whose primary objective is long-term capital appreciation by investing in companies' common stocks that are expected to show increased earnings.

Growth stock: a stock whose earnings and market price have increased over time at a rate that is well above average.

Growth: the investment objective that aims at producing a capital gain at the time of sale.

Guaranteed insurability: a cash value life insurance feature that allows the policyholder to purchase additional cash value insurance at predesignated intervals and standard rates without passing a medical examination.

Guaranteed investment contract (GIC:) an investment product, offered mostly by life insurance companies, that promises to pay a set rate of interest to investors over the life of the contract; found mostly in 401(k) and other company-sponsored retirement plans, the only guarantee they carry is that of the company that sold the contract.

Guaranteed purchase option: an option in a life insurance contract that allows the policyholder the right to purchase additional coverage, at stipulated intervals, without having to provide evidence of insurability.

Guaranteed renewable policy: a policy that is always renewable as long as the premiums are paid, although the company can raise the policy's rates.

Guardian: the individual appointed to take care of minors.

Hazard: a condition that affects the probability of loss.

Health Maintenance Organizations (HMOs): health insurance agencies that offer group health insurance for a fixed, prepaid premium and stress preventive health care.

Health Savings Accounts(HSAs): Some workers enrolled in high-deductible medical plans can divert part of their pay, before taxes, to these savings plans. HSAs allow participants to use untaxed dollars to pay medical bills not covered by plans. Money that's not used initially accumulates for later health spending or even retirement.

Holographic will: will that does not meet all the formal requirements of a valid will.

Home equity credit line: a line of credit issued against the existing equity in a home.

Homeowners insurance: an insurance policy designed for a variety of risks of homeowners.

Homeowners Warranty (HOW) Program: a program in which builders guarantee their workmanship, materials, and construction defects,

Implied warranty: warranty stating that a product is capable of doing what it is supposed to do.

Income stocks: stocks of companies with relatively large and stable dividends.

Incontestable clause: a clause in life insurance policies providing that the insurer cannot question the validity of the information provided by the insured after the policy has been in force for 2 years.

Indemnity (fee-for-service) plan: health care insurance plan in which the person or organization from which you get the health care services is separate from the insurer, who pays the provider or reimburses you for a percentage of expenses after a deductible. These plans provide unlimited choices of doctors and hospitals.

Indemnity: a legal principle that determines the amount of the economic loss reimbursed for destroyed property.

Indenture: a formal contract between a bond issuer and a bond buyer that establishes the terms of a bond.

Independent agent: an insurance agent who may place coverage with any company with which he or she has an agency relationship as long as the insured meets that company's underwriting standards.

Index rate : an interest rate index that is meant to capture the movement of interest rates; used by mortgage lenders as a base rate for determining the rate of interest charged on ARMs.

Individual practice association (IPA) : a form of HMO in which subscribers receive services from physicians operating out of their own offices and from community hospitals rather than from a central facility.

Individual retirement account (IRA): a retirement plan for an individual:

Inflation: a general rise in the prices of goods and services.

Inflation risk: the risk that the value of investments does not rise due to inflation.

Inheritance tax: a state tax levied on individuals who inherit property.

Installment loans: loans that are repaid by making a series of fixed payments.

Installment sales: the sale of property on installment terms.

Interest rate cap: a feature of an adjustable-rate mortgage loan that places a limit on the amount that the interest rate can increase each adjustment period (periodic cap) as well as over the life of the loan (overall cap).

Interest rate risk: changes in the value of fixed-income securities such as bonds and preferred stocks due to changes in market interest rates.

Interest-adjusted cost index: a method of determining the cost of life insurance which takes into account the cost to the policyholder of lost interest on premium paid for coverage.

International fund: a mutual fund that does all or most of its investing in foreign securities; also includes global funds, a special type of international fund that invests in both international and domestic securities.

Intestacy: the situation created when an individual dies without leaving a valid will.

Investment banker: a person who provides financial advice and who underwrites and distributes new investment securities.

Investment club: a club of members who pool their funds to buy and sell securities.

Irrevocable living trust: a trust in which the grantor relinquishes title to the property placed in it as well as the right to revoke or terminate it.

Irrevocable trust: a trust in which the grantor has no control over the trust.

Joint account: a bank account in the names of two or more persons.

Joint tenancy: a form of ownership of property in which more than one person shares an undivided interest in the property.

Joint tenancy with right of survivorship: a special form of joint tenancy where if one person dies, the surviving owner automatically becomes the sole owner of the property.

Jumbo loans: loans that differ from conforming loans in that they are above the maximum conforming amount and reflect each lender's own guidelines.

Junior bonds: bonds whose priority of claims are lower than that of senior bonds.

Junk bond: a bond with a speculative credit rating of BB or lower by the major rating agencies such as Standard & Poor's or Moody's.

Kelly Blue Book: a source that lists the wholesale and retail value of used cars. Available at depository institutions and libraries.

Keogh plan: a plan that allows self-employed persons to establish tax-sheltered retirement programs themselves.

Krugerrand: bullion coin from South Africa.

Lease: agreement a rental contract intended to protect the lessor from nonpayment or some adverse action of the lessee.

Ledger: the financial record book that should contain separate sections for assets, liabilities, sources of income, and expenditure items.

Letter of last instructions: an informal memorandum containing suggestions or recommendations for carrying out the provisions of a will.

Leverage: the use of borrowed funds or other people's money (OPM) to magnify returns.

Liabilities: a person's debts. Examples are department store chains, bank card charges, installment loans, or mortgages on real estate.

Liability: exposures risk incurred by an individual who might negligently cause property damage or bodily injury to someone else.

Liability insurance: a type of insurance coverage that pays for damages the insured has accidentally caused another and for the insureds defense against another who is seeking compensation arising out of a covered occurrence.

Licensing fees: means by which state and local governments obtain revenue by licensing certain professions and from the sale of automobile licenses.

Lien: legal claim that permits the lender to liquidate the items that serve as collateral in the event of a default.

Life annuity with no refund (straight life): annuitant receives a specified amount of income for life, regardless of whether the period over which income is distributed is 1 year or 50 years.

Life annuity period: certain type of guaranteed minimum annuity in which the annuitant is guaranteed a stated amount of monthly income for life and the insurer agrees to pay for at least a minimum number of years, regardless of whether the annuitant survives.

Life expectancy: mean number of years of life remaining at a given age.

Life goals: goals, not necessarily financial, which most individuals wish to achieve during their lives. The ability to achieve them often depends on realizing a certain level of financial success.

Limit order: an order to either buy a security at a specified price or lower or sell a security at or above a specified price.

Limited liability: the concept under which an investor in a business cannot lose more than the amount of his or her investment.

Limited partnership: a type of partnership in which the limited partner is legally liable only for the amount of his or her initial investment.

Limited payment whole life: whole life insurance policy that offers coverage for the entire life of the insured but schedules the premium payments to end after a limited period.

Line of credit: an arrangement by which a credit customer can borrow up to a specified maximum amount of funds.

Liquid assets: includes cash, money in checking and savings accounts, certificates of deposit (CDs), and other investments that can readily be converted into cash.

Liquidity ratio: ratio of liquid assets divided by total current debt.

Listed securities: securities that trade on organized markets.

Living (inter vivos) trust: trust created while the grantor is still alive.

Living will: a document that states, in very precise terms, the treatments that a person wants and to what degree he or she wishes them continued if he or she becomes terminally ill.

Load fund: a mutual fund of which a transaction cost (associated with the purchase of shares) is levied.

Loan amortization: the systematic repayment of the loan principal and interest.

Loan application: an application that provides a lender with information about the purpose of the requested loan, whether it will be secured or unsecured, and the applicant's financial condition.

Loan disclosure statement: a document that lenders are required to supply borrowers that states both the dollar amount of finance charges and the APR applicable to a loan.

Loan-to-value (LTV) ratio: the percentage of the property's value the lender is willing to make a loan on.

Long-term care: the delivery of medical and personal care, other than hospital care, to persons with chronic medical conditions resulting from either illness or frailty.

Long-term gains (losses): the sale of a capital asset held for more than 1 year at a higher (lower) price than the original cost.

Lump-sum payments: payments under workers' compensation of a specific amount for specific types of losses.

Magnetic Ink Character Recognition (MICR): a magnetic coding imprinted on checks and deposit slips to speed up the check and deposit clearing process.

Maintenance margin: the minimum percentage equity an investor must maintain in a stock purchased using borrowed funds.

Major medical plan: an insurance plan designed to supplement the basic coverage of hospital, surgical, and physicians expenses, which are designed to cover smaller health care costs. Major medical is used to finance medical costs of a more catastrophic or long-term nature.

Managed care plan: health care plan in which subscriber/users contract directly with the provider organization, which furnishes comprehensive health care services for a fixed fee from a designated group of providers who meet stringent selection criteria. These plans emphasize cost control and preventive treatment.

Manufactured home: a partially or fully assembled, factory-produced housing unit that can be transported to a desired location, placed on either a permanent or temporary foundation, and then connected to utilities and used as a residence.

Margin: the amount, typically up to a few percentage points, that is added to the basic index rate on an adjustable-rate mortgage loan to determine its prevailing rate of interest; it is usually fixed over the life of the loan.

Margin purchases (buying): the buying of securities using some borrowed funds. The percentage of borrowed funds is limited by both law and brokerage firms.

Margin requirement: provision which specifies what proportion of each dollar used to purchase a security must be provided by the investor.

Market maker: person who specializes in creating markets for certain securities in the over-the-counter market by offering to buy or sell a given security at specified bid and ask prices.

Market order: an order to buy or sell stock at the best price available at the time the order is placed.

Market rate of interest: the rate of interest paid on instruments with similar types of risk in the marketplace.

Market risk: factors, such as changes in political, economic and social conditions, as well as changes in investor tastes and preferences, which may cause the market price of a security to change.

Marriage penalty: under the U.S. tax code, the increased taxes paid under certain circumstances by a two-income married couple filing a joint return compared with taxes paid by a two-income couple filing as "separate" persons.

Medicaid: A public assistance program under Social Security that is designed to provide medical benefits for those persons who are unable to pay their own health care costs.

Medical payments insurance (automobile): insurance that provides for payment to eligible particpants of an amount no greater than the policy limit for all reasonable and necessary medical expenses incurred within I year after an automobile accident.

Medicare: a health care plan administered by the federal government designed to help persons over age 65 and others who receive monthly Social Security disability benefits.

Minimum payment (charge account): the minimum payment required on a charge account; usually represents a specified percentage of new account balance.

Money market certificate (MMC): type of certificate of deposit issued by banks, savings and loan associations, mutual savings banks, and credit unions. They have 6-month maturities and pay interest at a maximum rate set equal to the rate paid on the most recently issued 6-month Treasury bills.

Money Market Deposit Account (MMDA): offered as of December 1982 by federally insured financial institutions; basically the same as a money market mutual fund.

Money market fund: mutual fund that pools the deposits of many investors and invests in short-term debt securities offered by the U.S. Treasury, major corporations, and commercial banks.

Monthly investment plan (MIP): an arrangement that allows investors to invest specified amounts, typically in the range of $50 to $1,000, in securities listed on the New York Stock Exchange every month or every 3 months.

Mortality rate: the number of deaths per 1,000 that will occur at specified ages each year.

Mortgage: a document conveying legal interest in a property to a lender as security for payment of a debt.

Mortgage banker: a firm that solicits borrowers, originates primarily government-insured and-guaranteed loans, and places them with mortgage lenders; frequently uses its own money to initially fund mortgages it later resells.

Mortgage broker: a firm that solicits borrowers, originates primarily conventional loans, and places them with mortgage lenders, merely takes loan applications and then finds lenders willing to grant the mortgage loans under the desired terms.

Mortgage life insurance: an insurance policy on the life of the borrower in which the lender is the beneficiary. If the borrower dies, the mortgage is automatically paid off.

Mortgage loan: borrowing to finance the purchase of a piece of property.

Mortgage points: fees charged by a lender in a mortgage loan.

Multiple earnings approach: a method of multiplying annual gross earnings by some arbitrary multiplier to determine life insurance needs.

Multiple indemnity clause: a clause in a life insurance policy that typically doubles or triples the policy's face amount in the event of the insured's accidental death.

Municipal bonds: bonds issued by state and local governments and other public institutions.

Mutual fund: an investment company that invests in a diversified portfolio of securities.

Mutual savings banks: financial institutions similar to savings and loan associations whose depositors arc their owners.

Named peril policy: an insurance policy which names the perils covered individually.

NASDAQ index: an index, supplied by the National Association of Securities Dealers, that tracks the performance of stocks traded in the OTC market.

National Association of Securities Dealers (NASD): a self-regulatory agency made up of all brokers and dealers in over-the-counter securities. It regulates the OTC securities market.

National Credit Union Administration (NCUA): organization of federal credit unions that insures deposits in all federal and many state-chartered credit-unions.

National Foundation for Consumer Credit: an organization which sponsors nonprofit credit counseling centers in many communities.

National health insurance: a much discussed form of insurance coverage under which the government would assume all or part of the costs of health care services.

Needs approach: method of determining life insurance needs which considers the financial resources available in addition to life insurance and the specific financial obligations a person may have.

Negligent action: an action inconsistent with the "reasonable man doctrine"--the doctrine that if a person fails to act as would one with normal intelligence, perceptions, and experiences common to the community, he or she is negligent.

Negotiable Order of Withdrawal (NOW): account similar in appearance and behavior to a checking account that can be viewed as an interest-earning checking account or as a savings account against which checks can be issued. While interest is paid at the passbook rate on regular NOW accounts, no interest rate ceiling exists on Super NOW accounts.

Net asset value (NAV): the price at which a mutual fund will buy back its own shares based upon the current value of the securities which it owns.

Net cost method: a method by which the relative cost of life insurance can be assessed. It is calculated by totaling the premiums paid over a given period, subtracting from it the total dividends and cash values projected for the period, and dividing the remainder by the number of years in the period.

Net earnings: the amount of earnings an employee takes home after the employer has made all required as well as requested deductions.

Net federal estate tax payable: amount of estate tax payable to the federal government after all credits are subtracted.

Net payment cost index: measure of cost of an insurance policy exclusive of its cash value.

Net worth: often considered the amount of personal or family wealth, it is determined by subtracting total liabilities from total assets.

New York Stock Exchange (NYSE:) the largest and most prestigious organized securities exchange; it handles a majority of the dollar volume of securities transactions and a high percentage of the total annual share volume on organized securities exchanges. Also called "Big Board."

Night depository: a protected type of mail slot on the exterior of a bank or other financial institution. Deposits can be submitted in special envelopes provided for after-hour deposits.

No-fault: a concept of automobile insurance that favors reimbursement without regard to negligence.

No-load fund: a mutual fund that does not charge transaction costs.

Nominal rate of interest: stated rate of interest on a loan or savings deposit; this rate does not necessarily represent the true rate of interest being paid on the funds.

Noncatastrophic loss: a loss that is not the result of catastrophic occurrences such as war, nuclear explosion, and large-scale flooding; generally speaking, losses from catastrophes cannot be safely insured by private insurance companies.

Noncontributory pension plan: a pension plan in which the employer pays the total cost of the benefits.

Noncumulative preferred stock: preferred stock on which dividends do not accumulate. The current dividend must be paid prior to earnings being distributed to common stockholders.

Nonforfeiture: right an option that gives the life insurance policyholder the portion of those assets that had been set aside to provide payment for the death claim that was not made. The amount, often called cash value, is given to the policyholder when the policy is canceled.

Nonparticipating preferred stock: preferred stock on which only the stated amount of dividends is owed to the shareholder.

Nonqualified deferred compensation plan: an arrangement between an employer and employee to defer payment for services rendered by the employee. Such an agreement is most useful when an employee's future needs for funds exceed his or her present requirements.

Note: the formal promise on the part of the borrower to repay the lender as specified in a sales contract.

N-ratio method: a formula for estimating the annual percentage rate on an add-on loan.

NYSE index: an index of the performance of all stocks listed on the New York Stock Exchange.

Odd lot: a quantity of fewer than 100 shares of a security.

Old age, survivor's disability, and health insurance (OASDHI): commonly referred to as Social Security, a U.S. government program established in 1935 and providing not only retirement benefits but also payments for survivors, disability income for workers and their dependents, and health care benefits for low-income and elderly families and individuals.

Online broker: typically a discount broker through which investors can execute trades electronically/online through a commercial service or on the Internet. (Also called Internet broker or electronic broker.)

Open account credit: form of credit extended to a consumer in advance of any transaction. It is often referred to as a charge account.

Open-end investment company: investment company that will sell or buy back its own shares at a price that is based on the current value of the securities the fund owns. It is commonly called a mutual fund.

Option: a contract that permits one to either- purchase or sell a specified security at a predetermined price within a certain period of time.

Option charge account: a type of revolving charge account.

Optional renewability: contractual clause allowing the insured to continue insurance only at the option of the insurer.

Organized securities exchange: institution where listed financial securities are traded by exchange members on a floor organized according to different types of securities. The largest and most prestigious example is the New York Stock Exchange.

Overdraft protection: special arrangement between bank and account holder whereby the bank automatically advances money to cover an overdrawn check. The account holder is charged interest on the advance.

Overspending: consumers spend more money or incur more obligations for future payment than they have income to cover.

Over-the-counter market (OTC): not a specific institution but rather a way of trading securities;

Par value: the stated or face value of a stock or bond.

Participating policy: the life insurance policy that pays dividends which reflect the difference between the premiums that are charged and the amount of premium necessary to fund the actual mortality experience of the company.

Participation or coinsurance: clause a provision in many health insurance policies stipulating that the company will pay some portion of the amount of the covered loss in excess of the deductible.

Partnership: a business owned by more than one person. Its income is normally taxed as the personal income of the owners, and their liability is not limited to their investment in the business.

Passbook account: a regular savings account at a financial institution.

Past due balance method: method of computing finance charges whereby customers who pay their account in full within a specified period of time, such as 30 days from the billing date, are relieved of finance charges.

Pawnshop: a loan source which accepts certain types of goods such as jewelry, guns, and stereos against which it lends 25 to 75 percent of their established market value.

Pay-as-you-go: basis method of paying income taxes whereby the employer deducts a portion of income every pay period and sends it to the IRS.

Payoff (on a loan): amount required to terminate a loan.

Pecuniary legacy: type of clause in a will which passes money to a specified party. Pension a fixed sum paid to a person following retirement.

Pension Benefit Guarantee Corporation (PBGC): established by a provision of the Employee Retirement Income Security Act of 1974, organization that guarantees to eligible workers certain benefits payable to them even if their employer's pension plan has insufficient assets to fulfill its commitments.

People planning: estate planning that places primary emphasis on satisfaction of human needs, anticipating psychological and financial needs for others, especially dependents with special problems or gifts and others who cannot, or do not want to, manage financial resources themselves.

Performance (go-go) fund: an investment company portfolio that emphasizes performance as measured by the total return earned on the shareholders' investments; the investment strategies are speculative.

Peril: cause of a loss.

Personal article floater (PAP): policy insurance policy that provides for comprehensive coverage on a blanket basis for virtually all personal property of the insured.

Personal bankruptcy: a form of legal recourse open to insolvent debtors in which they may petition a court for protection from creditors and arrange for the orderly liquation and distribution of their assets.

Personal financial planning: planning that covers the key elements of an individual’s financial affairs and is aimed at achievement of his or her financial goals.

Physicians expense insurance: insurance that can provide coverage for costs of such services as physicians' fees for nonsurgical care in a hospital, at home, in a clinic, or in a doctor's office.

Pocket money: all currency and coin under the control of an individual or family. This includes cash on the person or in the home.

Point-of-service (POS) plan: type of HMO that allows members to go outside the HMO network for care; the plan reimburses members for nonaffiliated services at a specified percentage of the cost after satisfaction of an annual deductible.

Policy dividends: dividends paid by a life insurance policy. The dividends may be received in cash or reinvested by the insurance company to earn interest, reduce the premium payment, or purchase additional insurance.

Policy limits: the benefit limits described in an insurance policy.

Policy loan: an advance made by a life insurance company to a policyholder secured by the cash value of the life insurance policy.

Portfolio: a collection of securities assembled for the purpose of meeting common investment goals.

Preauthorized payment: mechanism that allows a savings institution to make payments from the customer's account at the customer's directions.

Precious minerals: minerals, such as gold, silver, and diamonds, which are used for investment purposes.

Preferred provider organization (PPO): health care provider that combines the characteristics of an IPA with an insurance plan to provide comprehensive health care services to its subscribers within a network of physicians and hospitals

Preferred stock: hybrid stock that has a legal right to a fixed amount of dividend.

Prepaid card: a plastic card with a magnetic strip or microchip that stores the amount of money the purchaser has to spend and deducts the value of each purchase; eliminates the need to use cash.

Prepayment penalty: a penalty charged by a lender for advance payment of a loan.

Prestige card: a type of bank or T&E card that offers higher credit limits, has stricter requirements for qualification, and generally offers more features than its “regular” counterpart.

Previous balance method: a method of computing finance charges by which interest is computed on the outstanding balance at the beginning of the billing period.

Price-earnings (PIE) ratio: the ratio of current stock price to the earnings per share. Also called earnings multiplier.

Primary market: a market in which new securities are traded.

Prime rate: the interest rate charged by banks to their best customers.

Principal (on an annuity): amount paid by the annuitant or person buying the annuity during the accumulation period.

Principal: amount the amount being borrowed on which interest is paid.

Principle of indemnity: an insurance principle that states an insured may not be compensated by his or her insurance company in an amount exceeding the amount of economic loss.

Private Mortgage Insurance (PMI) program: insurance plan for lenders that insures them against loss on certain mortgages, usually those with a low down payment.

Probate: a process of liquidation that occurs when a person dies. The deceased's debts are collected or paid, and the remaining assets are distributed to the appropriate individuals or organizations.

Probate estate: the real and personal property a person owns in his or her own name that can be transferred according to the terms of that person's will.

Probate process: the court-supervised process of liquidation that occurs when a person dies; it consists of collecting money owed the decedent, paying his or her debts, and distributing the remaining assets to the appropriate individuals and organizations.

Professional corporation: corporation established by groups of lawyers, doctors, architects, dentists, and other professionals in part to allow them to set up pension and retirement plans.

Professional liability: insurance policies designed to protect such professionals as doctors, lawyers, architects, professors, and engineers in the event that they are sued for malpractice.

Profit sharing plan: an arrangement whereby the employees of a firm participate in the earnings of the firm. Such an arrangement may qualify as a pension plan.

Progressive tax: a tax schedule in which the larger the amount of taxable income, the higher the rate at which the income is taxed.

Property damage liability losses: losses caused by an insured to the property of another as a result of an accident in which the insured is legally obligated to pay such property damages.

Property insurance: insurance that provides coverage for physical damage to or destruction of property.

Property inventory: a prepared schedule of property with corresponding values noted.

Property owner association agreement: rules and regulations for owners of condominiums and other developments in which owners share use of a property or facilities.

Property tax: a tax levied on the value of various items of property, such as real estate, automobiles, and boats, owned by the taxpayer.

Prospectus: a document made available to prospective security purchasers by the issuer describing the new security being offered.

Proxy: a written statement used to assign a stockholder's voting rights to another person, typically the existing directors.

Purchasing power risk: a risk resulting from possible changes in price levels in the economy that can have a significant effect on the prices of securities.

Put option: an option to sell a specified number of shares of a stock at or before a specified future date for a stated "strike" price.

Qualified pension plan: a retirement plan that meets specified criteria established by the Internal Revenue Code.

Real estate investment company: a corporation that sells its shares and uses the proceeds to make real estate investments.

Real Estate Investment Trust (REIT): an investment company that accumulates money for investment in real estate ventures by selling shares to investors.

Real Estate Settlement Procedures Act (RESPA): law which requires mortgage lenders to clearly disclose settlement costs, closing costs, and the annual percentage rate to loan applicants and borrowers.

Real estate tax: the dominant form of property taxes, it is typically collected by the county and distributed among other governmental bodies to finance schools and other services.

Reasonable man doctrine: doctrine stating that if a person fails to act in a reasonable manner, he or she is said to be negligent.

Rebate (co-branded) credit card: a bank credit card that combines features of a traditional bank credit card with an additional incentive, such as rebates or airline mileage.

Recession: the phase of the economic cycle during which both the level of employment and the overall level of economic activity are slowing down.

Recovery: the phase of economic cycle during which the employment level is improving and the economy is experiencing increased activity and growth.

Regional stock exchanges: organized markets other than the NYSE and AMEX.

Registered bond: bond registered in the name of the bond purchaser.

Regulation Z: a regulation (Consumer Credit Protection Act) issued by the Federal Reserve Board.

Renewable term: a type of term insurance which may be renewed at its expiration for another term of equal length.

Renewal: right of the insured to continue coverage upon the expiration of the policy period.

Rent controls: controls imposed by a local government which limit annual rent increases to a "reasonable" level.

Rental contract: a legal device intended to protect the lessor from nonpayment or some adverse action of the lessee. It specifies the amount of the monthly payment, the payment date, penalties for late payments, length of the lease agreement, any deposit requirements, distribution of expenses, renewal options, and any other restrictions.

Replacement cost: the amount necessary to repair, rebuild, or replace an asset at today's prices.

Repossession: the act of seizing collateral when the borrower defaults on an installment loan.

Restrictive endorsement: this check endorsement, by adding the word "only" after the third party's name, prevents the check from being endorsed over to a fourth party.

Retail charge card: a type of credit card issued by retailers, airlines, and so on, that allows customers to charge goods and services up to a pre-established amount.

Retirement goals: goals aimed for by individuals at retirement.

Revocable living trust: trust in which grantor reserves the right to revoke the trust and regain the trust property.

Revolving charge account: type of credit which allows customers to continue to purchase goods as long as they do not exceed the credit limit established or let their account become delinquent by not making specified minimum payments.

Right: an instrument that gives the holder an opportunity to purchase a specified number of shares of common stock at a specified price over a designated period of time.

Right of election: the right of a surviving spouse to take a specified portion of the probate estate regardless of what the will provides.

Rights offering: an offering of new shares of corporate stock to existing shareholders on a proportional basis relative to their current ownership.

Risk avoidance: avoidance of the act that creates the risk.

Risk: uncertainty regarding economic loss or the outcome from an investment.

Rollover mortgage: a mortgage in which the rate of interest is fixed but the, whole loan is negotiated, or rolled over at stated intervals, usually every 5 years.

Round lot: securities sold in 100-share lots or some multiple thereof.

Rule of 78 (sum of the digits): a rule that is-used to determine the portion of the total finance charges the lender receives when a loan is paid off prior to its maturity.

Salary-reduction plan: agreement under which a portion of a covered employee's pay is withheld tax-free and invested in an annuity or other eligible form of investment.

Sales contract: a formal agreement to purchase a house, automobile, or other major item which states the offering price and all conditions—including repairs, inspections, closing date, and so on-required by buyer and seller. It is a contractually binding agreement.

Sales finance company: a company that purchases notes drawn up by sellers of certain types of merchandise typically more expensive items, such as automobiles, furniture, and appliances.

Sales tax: tax levied by many state governments on the purchase price of an item or service. Some states exempt items viewed as necessities, such as food and drugs. I

Savings accumulation plan: an arrangement under which an investor makes scheduled purchases of a given dollar amount of shares in a mutual fund.

Savings and loan association: financial institution that channels the savings of its depositors primarily into mortgage and home improvement loans.

Savings: money that has been set aside, commonly in an interest-earning form, in order to achieve any of a number of savings or investment goals.

Savings ratio: ratio of savings to income after taxes (disposable income).

Second mortgage: mortgage that is next to a first mortgage.

Secondary market: market in which old securities are sold and bought. Equivalent to a used car market.

Secured (and unsecured) loans: if collateral is named for a loan, the loan is secured; if none is given, it is unsecured.

Secured (collateralized) credit cards: a type of credit card that's secured with some form of collateral, like a bank CD; with these cards, the amount of credit you get depends on how much collateral you can put up.

Securities and Exchange Commission (SEC): the agency of the federal government that has the responsibility of enforcing the Securities Exchange Acts of 1933 and 1934. This agency regulates the disclosure of information about the securities exchanges and markets in general.

Securities exchanges: marketplaces -- either organized or over-the-counter--in which buyers and sellers of securities can be brought together to make transactions.

Securities Investor Protection Corporation (SIPQ): an agency of the federal government that insures brokerage customers' accounts.

Securities markets: the marketplace in which stocks, bonds, and other financial instruments are traded.

Securities: obligations of issuers that provide purchasers with an expected or stated return on the amount invested. The two basic types of securities are stocks and bonds.

Security agreement: security interest a legal agreement which gives the installment lender control over the item being purchased.

Security interest: the legal claim of an installment lender providing control over the item being financed.

Self-Employment Individuals Tax Retirement Act (1962): HR-10 or Keogh Act, which gives self-employed persons the right to establish retirement plans for themselves and their employees that provide them the same tax advantages available to corporate employees covered by qualified pension plans.

Self-employment tax: a tax that must be paid to the federal government by self-employed persons. The proceeds of this tax are used to provide self-employed persons with the same benefits regularly employed persons receive through the FICA tax.

Sell order: an order to sell a specified number of shares of a given security.

Senior debts: debts or bonds to which debentures are subordinated; these debts have a senior claim on both the income and assets of the issuer.

Series EE bond: a savings bond issued in various denominations by the U.S. Treasury.

Settlement options: the various ways in which the death proceeds of a life insurance policy may be paid, such as interest only, payments for a stated period, payments of a stated amount, or income for life.

Share draft account: checking account offered by credit unions. They are similar to the negotiable order of withdrawal (NOW) account offered by other financial institutions.

Shared-appreciation mortgage: a mortgage on which the rate of interest is set lower than market in exchange for giving the lender a partial -- about one-third-interest in any gain in the property's value.

Short sale: a transaction made in anticipation of a decline in the price of a security. It is the practice of selling borrowed securities with the expectation that they can be replaced at a lower price at some future date.

Short-term financial goals: goals set for 1 or 2 years only.

Short-term capital gain: gain from sale of a capital asset owned for 1 year or less at a higher price than its original cost that is taxed as ordinary income.

Sickness policies: insurance policies which cover a named disease such as cancer.

Signature card: card containing account number, name, address, phone number, and signature kept on file in a financial institution and used to confirm validity of signatures on checks drawn on the account.

Simple interest method: the method by which interest is charged only on the actual loan balance outstanding.

Simplified Employee Pension (SEP): account that can be used to either supplement or replace an employee's self-selected and controlled IRA. Through employer participation, this plan can substantially increase the amount that can be credited each year to an IRA.

Single limit automobile liability: an automobile liability policy that specifies the maximum amount paid per accident as a single lump sum rather than in terms of separate per-individual and per-accident limits for bodily injury and property damage.

Single-payment loan: a loan made for a specified period of time at the end of which full payment is due.

Single-premium annuity: contract annuity purchased with a lump-sum payment, often just prior to retirement.

Single-premium whole life: a whole life insurance policy that is purchased on a cash basis by making a single premium payment.

Social security survivor's benefits: benefits included in the social insurance provision of the social security system that are intended to provide basic support for families who have lost their principal wage earners.

Socially responsible fund: a type of mutual fund that puts social concerns on the same level of importance as financial returns, investing only in companies that meet certain moral, ethical, and/ or environmental tests.

Sole proprietorship: a business owned by one person and operated on his or her own behalf. Its income is taxed as personal income, and the owner's liability is unlimited.

Solvency ratio: ratio of net worth (assets minus liabilities) divided by total assets.

Spec home: new homes constructed by builders on speculation that a buyer will be found. They vary in price, size, and other features and can be found in various stages of construction.

Special endorsement: check endorsement that includes a notation indicating specifically to whom the check is to be paid.

Special savings account: a savings account that offers slightly higher interest rates than a passbook account but in exchange requires the saver to maintain a specified minimum balance and/or to maintain that balance for a specified period of time. Certificates of deposit are an example.

Specialist: an exchange member who specializes in making transactions in certain securities traded on an organized securities exchange.

Specialty fund: a common stock fund that invests in the shares of firms within a specific industry.

Speculative (day) traders: traders who purchase stocks with the intention of gaining from their day-to-day fluctuations in price.

Speculative stock: risky stocks that are purchased in the hope that their price per share will increase.

Split-funded pension plan: qualified pension plan in which both a trust fund and an insurance contract is used to fund the plan.

Standard & Poor's (S&P) indexes: indexes compiled by Standard & Poor's Corporation; similar to the DJIA but employ different computational methods and consist of far more stocks.

State taxes: taxes levied by state governments to finance their operating costs. Sources include sales tax, income tax, property tax, and licensing fees.

Step-up trust: type of living trust in which the trustee steps up to take the grantor's place in decision making and day-to-day management.

Stock average (or index): an average or index of group of stock's that is believed to reflect the behavior of a given industry or the entire securities market. These averages are used to gauge the behavior of the securities market.

Stock company: an insurance company that is owned by stockholders.

Stock dividend: new shares of stock distributed to existing stockholders as a supplement to or in place of cash dividends.

Stock purchase option (plans): an option given to employees of a corporation that allows them to purchase a specified number of shares of its stock at a price set above the prevailing market price when the option is granted.

Stock split: a trade of old shares for new shares typically initiated by management in order to either increase or reduce the price of stock,

Stockbroker: sometimes called an "account executive." The stockbroker purchases and sells securities on behalf of clients, to whom he or she provides advice and information.

Stockholders' report: sometimes called an annual report, a report that includes a variety of financial and descriptive information about a firm's operations during the year.

Stop payment: an order to the bank not to make payment on a check that has been written.

Stop-loss order: an order an investor gives his/her broker to sell a security if the market price reaches a certain level, which is lower than its current price.

Stop-loss provision: a cap in a major medical insurance policy that limits the insured's payment under the participation, or coinsurance, clause to a specified amount, such as $10,000.

Store charges: a type of open account credit which is offered by various types of retail merchants.

Straight bankruptcy: legal proceeding that results in "wiping the slate clean and starting anew."

Straight term: a term insurance policy that is written for a given number of years. Coverage remains unchanged throughout the period of the policy.

Striking price: the price at which an option (call or put) can be exercised, normally at a price set close to the market price of the stock at the time the option is issued.

Subordinated debenture: an unsecured bond that carries only a secondary claim (with respect to both income and assets) to that of other bondholders or lenders.

Subprime mortgages: mortgages for people with credit scores under 620; also called non-prime mortgages. Many such homeowners found themselves unable to pay off their mortgages as interest rates rose and house values sank. See also toxic assets.

Suicide clause: life insurance clause which voids the contract if an insured commits suicide within a specified period of time after its inception.

Super NOW account: a negotiable order of withdrawal (NOW) account issued by financial institutions that may pay interest without restrictions and offer unlimited check-writing privileges. Minimum balances are required.

Supplementary medical insurance (SMI): a voluntary program under Medicare (commonly called Part B) that provides payments for extra services, such a s physicians' and surgeons' services, home health service, and X-ray and laboratory services, and requires participants to pay premiums.

Surgical expense insurance: health insurance coverage for the cost of surgery.

Survivorship benefit (on an annuity): that portion of the premiums and interest that has not been returned to the annuitant prior to his or her death.

Survivorship life insurance: life insurance that also covers two person, but only pays when the second one dies; also known as "last-to-die" insurance.

Syndicate (real estate): a limited partnership that invests in various types of real estate and is professionally managed. There are various types of real estate syndicates-such as single property and blind pool-involved in specific kinds of real estate acquisitions.

Systematic withdrawal plan: a plan that allows the mutual fund shareholder to be paid specified amounts each period.

Take-home pay: the amount of earnings an employee takes home after the employer has made all required as well as requested deductions.

Tangible property: tangible items of real and personal property that generally have a long life, such as housing and other real estate, automobiles, jewelry, and other physical assets.

Tax audit: an examination by the IRS to validate the accuracy of a given tax return.

Tax avoidance: the minimizing of tax payments in which the taxpayer accurately reports all items of income and expenditure but utilizes legitimate deductions and computational procedures.

Tax credits: a deduction from a taxpayer's tax liability, such as the child-care credit.

Tax deferred: income that is not subject to taxes immediately but which will be subject to taxes at a later date.

Tax evasion: failure to accurately report income, expenditures, and tax liabilities; failure to pay taxes. Persons found guilty of this illegal act are subject to severe financial penalties and prison terms.

Tax liability: actual amount of taxes owed.

Tax Preparation services: professionals trained in the preparation of taxes, including national services, local services, attorneys with tax training, or CPAs.

Tax refund: amount of money due an individual taxpayer from the IRS as a result of withholding and/or estimated tax payments exceeding the actual tax liability.

Tax shelter: certain types of investments that provide tax write-offs (deductions). Tax shelters often involve real estate and oil-related investments.

Tax write-off: in accounting terminology, depreciation, amortization, and depletion, used as a means to lower tax liability.

Taxable gift: Money or property that is subject to a gift tax.

Taxable income: amount of income that is subject to taxes. It is calculated by subtracting itemized deductions and exemptions from adjusted gross income.

Tax-deferred annuity: an annuity that is exempted from current income taxes.

Tax-exempt income: certain types of income, such as child support payments and disability payments, that do not have to be claimed as part of the taxpayer's gross income for tax purposes.

Tax-exempt money fund: a money market mutual fund that limits its investments to tax-exempt municipal securities with short maturities.

Tax-exempt securities: bonds paying interest that is exempt from federal, and in many cases, state income taxes. These securities are issued by various state and local governments and are often called municipal.

Tax-sheltered college education fund: fund in which money can be accumulated tax-free and used to pay future college education expenses of a child.

Technical theory: belief that security prices are solely the result of the forces of supply and demand.

Temporary life annuity: annuity in which benefits continue for the specified period only if the annuitant survives.

Tenancy by the entirety: form of ownership by husband and wife, recognized in certain states, in which the rights of the deceased spouse automatically pass to the survivor.

Tenancy in common: title to property under which each tenant who owns an interest is free to dispose of that interest without the consent of other tenants.

Term life insurance: insurance that covers the insured only for a specified period, most often 5 years, and does not provide for the accumulation of any cash values.

Testamentary trust: trust created in a will.

Testator: a person whose will directs the disposition of property at his or her death.

Thrift and savings plan: plan established by employers to supplement pension and other insurance fringe benefits. The employer generally makes contributions to a savings plan in an amount contributed by the employee.

Time deposit: the term used in the banking and financial industry to refer to a savings account.

Time-sharing in real estate: arrangement under which buyers purchase rights to a resort condominium or hotel unit for a specified time each year; also called interval ownership.

Title check: research of legal documents and records-usually performed by an attorney or title insurance company-to verify ownership and interest in a title to real estate.

Total return: the return received on a security investment over a specified period of time. It is made up of two basic components-the dividend (or interest) yield and capital gains.

Travel and entertainment (T&E) card: credit cards, such as American Express, Diners Club, and Carte Blanche, that enable the holder to charge purchases at a variety of locations. The holder is charged an annual fee to use the card.

Traveler's check: a check which can be purchased at commercial banks and other financial institutions in denominations ranging from $10 to $1,000. When properly endorsed, they are accepted by most U.S. businesses and can be exchanged for local currencies in most parts of the world.

Treasury bill: a short-term (91- to 360-day) debt instrument issued by the federal government. It is considered to be a safe and marketable investment.

Treasury bond: a federal government obligation, ordinarily payable to the bearer, that is issued at par, with maturities of more than 5 years and interest payable semiannually.

Treasury inflation-indexed bond (TIPS): a type of Treasury security that provides protection against inflation by adjusting investor returns for the annual rate of inflation.

Treasury note: an obligation of the federal government, usually issued payable to the bearer, with a fixed maturity of not less than 1 year or more than 7 years; issued at par, with a specified interest return paid semiannually.

Trust: a relationship created when one party (the grantor) transfers property to a second party (the trustee) for the benefit of a third party (the beneficiary).

Trust fund pension plan: a pension plan in which the employer places its contributions with a trustee, who is then responsible for the investment of contributions and the payments of benefits.

Trustee: someone appointed to enforce the indenture and protect the interest of a bondholder, or (in the case of estate planning) a person or corporation that manages a grantor's property for the benefit of his or her beneficiaries.

Truth -in-Lending Act: a wide-ranging law designed to protect credit purchasers. The most important provision is that both the dollar amount of finance charges and the annual percentage rate (APR) charged must be disclosed prior to extending credit, It was formally called Consumer Credit Protection Act (1969).

U.S. Savings Bond: bond issued in various denominations and maturities by the U.S. Treasury to assist in financing federal government operations.

Umbrella personal liability policy: a policy that provides excess liability coverage for both homeowner and automobile insurance, as well as coverage in some areas not provided for in either of these policies.

Underwriting (insurance): the process of deciding who can be insured and determining the applicable rates.

Underwriting (securities): the process of selling a new security issue, a task normally carried out by an investment banking firm.

Underwriting syndicate: a group of underwriting firms (that is, investment banking firms) who accept the responsibility for selling a new security issue.

Unfunded pension plan: pension plan which allows the employer to make payments to retirees from current income.

Unified rate schedule: the graduated table of rates used for both federal gift and estate tax purposes.

Unified tax credit: the credit that can be applied against the tentative gift or estate tax

Uninsured motorists coverage: insurance designed to meet the needs of innocent accident victims when involved in an accident in which an uninsured or underinsured motorist is at fault.

Unit investment trust: a type of investment vehicle whereby the trust sponsors put together a largely fixed/unmanaged portfolio of securities and then sell ownership units in the portfolio to individual investors.

Universal life insurance: a type of insurance contract that combines term insurance (death benefits) with a tax-deferred savings/investment account that pays competitive money market interest rates.

Unlimited liability: liability that can extend beyond the amount of money an investor has put into a business (for example, the liability of owners of a sole proprietorship or partnership).

Unsecured personal credit line: a line of credit that is made available to an individual on an as needed basis in the form of check-writing privileges against it.

Usury laws: state laws that prohibit the charging of interest above a certain limit.

Utility: the amount of satisfaction a person receives from purchasing certain types or quantities of goods and services.

VA loan guarantee: guarantee of a mortgage loan by the U.S. Veterans Administration to lenders who make qualified mortgage loans to eligible veterans.

Valued approach: under health insurance, payment to an insured of amounts specified in a policy. Such payments may not necessarily bear a direct relationship to actual costs incurred.

VantageScore: a new generic credit scoring model that opens doors to the opportunities that having credit creates. Created by America's three major credit reporting companies, VantageScore's highly predictive model uses an innovative, patent-pending scoring methodology to provide lenders with a consistent interpretation of consumer credit files across all three major credit reporting companies and the ability to score a broad population. This means lenders can help more creditworthy borrowers, and millions of Americans who use credit infrequently can be accurately scored.

Variable annuity: annuity in which the monthly income provided can be adjusted according to the actual investment experience of the insurer.

Variable life insurance: insurance in which the benefits payable to the insured are related to the value of the company's assets that support its payment obligation.

Vesting: the right of employees to benefits in a retirement plan based on their own and their employer's contributions.

Wage earner plan: arrangement that schedules debt repayment over future years that is an alternative to straight bankruptcy when a person has a steady source of income and there is a reasonable chance of repayment within 3 to 5 years.

Waiting period: a provision of some disability income insurance policies that requires that the insured wait a specified length of time after the disability before payment begins.

Waiver of premium: a clause that provides for automatic payment of premiums should an insurance policyholder be unable through disability to make the payments.

Warrant: an instrument that gives the holder an opportunity to purchase a specified number of shares of common stock at a specified price, normally set above the market price at time of issue, over a designated period of time.

Warranty: for automobiles and other products, contract stating responsibilities for repair and maintenance of a vehicle or product, offered by manufacturers and dealers.

Whole life insurance: life insurance designed to offer financial protection for the entire life of the individual. Cash values are accumulated under this type of insurance.

Will: a written document that allows a person, called a testator, to determine the disposition of property at his or her death.

Wilshire 5000 index: an index of the total market value of the 5,000 or so most actively traded stocks in this country.

Workers' compensation insurance: a type of insurance paid for by the employer and designed to compensate the worker for job-related injuries or illness.

Writer (of options): in an option transaction, an individual who writes the options to he purchased or sold by the Option buyer.

Yield: the return on an investment.

Yield to maturity (YTM): the annual rate of return that a bondholder purchasing a bond today and holding it to maturity would receive on his or her investment.

Zero bracket amount (ZBA): a specified amount of a taxpayer's income to which a zero tax rate applies. A taxpayer can use this blanket deduction- instead of itemizing personal expenses.

Zero-coupon bond: bond sold at a deep discount that accrues interest semiannually.

Zoning laws: laws that govern permissible uses of property. They may also control factors such as building size and appearance and site placement.

Valuation Tables

Table 1 – Future Value of $1

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	1.0100	1.0200	1.0300	1.0400	1.0500	1.0600	1.0700	1.0800	1.0900	1.1000	1.1200	1.1400	1.1500	1.1600	1.1800	1.2000	1.2400	1.2800	1.3200	1.3600
2	1.0201	1.0404	1.0609	1.0816	1.1025	1.1236	1.1449	1.1664	1.1881	1.2100	1.2544	1.2996	1.3225	1.3456	1.3924	1.4400	1.5376	1.6384	1.7424	1.8496
3	1.0303	1.0612	1.0927	1.1249	1.1576	1.1910	1.2250	1.2597	1.2950	1.3310	1.4049	1.4815	1.5209	1.5609	1.6430	1.7280	1.9066	2.0972	2.3000	2.5155
4	1.0406	1.0824	1.1255	1.1699	1.2155	1.2625	1.3108	1.3605	1.4116	1.4641	1.5735	1.6890	1.7490	1.8106	1.9388	2.0736	2.3642	2.6844	3.0360	3.4210
5	1.0510	1.1041	1.1593	1.2167	1.2763	1.3382	1.4026	1.4693	1.5386	1.6105	1.7623	1.9254	2.0114	2.1003	2.2878	2.4883	2.9316	3.4360	4.0075	4.6526
6	1.0615	1.1262	1.1941	1.2653	1.3401	1.4185	1.5007	1.5869	1.6771	1.7716	1.9738	2.1950	2.3131	2.4364	2.6996	2.9860	3.6352	4.3980	5.2899	6.3275
7	1.0721	1.1487	1.2299	1.3159	1.4071	1.5036	1.6058	1.7138	1.8280	1.9487	2.2107	2.5023	2.6600	2.8262	3.1855	3.5832	4.5077	5.6295	6.9826	8.6054
8	1.0829	1.1717	1.2668	1.3686	1.4775	1.5938	1.7182	1.8509	1.9926	2.1436	2.4760	2.8526	3.0590	3.2784	3.7589	4.2998	5.5895	7.2058	9.2170	11.703
9	1.0937	1.1951	1.3048	1.4233	1.5513	1.6895	1.8385	1.9990	2.1719	2.3579	2.7731	3.2519	3.5179	3.8030	4.4355	5.1598	6.9310	9.2234	12.166	15.917
10	1.1046	1.2190	1.3439	1.4802	1.6289	1.7908	1.9672	2.1589	2.3674	2.5937	3.1058	3.7072	4.0456	4.4114	5.2338	6.1917	8.5944	11.806	16.060	21.647
11	1.1157	1.2434	1.3842	1.5395	1.7103	1.8983	2.1049	2.3316	2.5804	2.8531	3.4785	4.2262	4.6524	5.1173	6.1759	7.4301	10.657	15.112	21.199	29.439
12	1.1268	1.2682	1.4258	1.6010	1.7959	2.0122	2.2522	2.5182	2.8127	3.1384	3.8960	4.8179	5.3503	5.9360	7.2876	8.9161	13.215	19.343	27.983	40.037
13	1.1381	1.2936	1.4685	1.6651	1.8856	2.1329	2.4098	2.7196	3.0658	3.4523	4.3635	5.4924	6.1528	6.8858	8.5994	10.699	16.386	24.759	36.937	54.451
14	1.1495	1.3195	1.5126	1.7317	1.9799	2.2609	2.5785	2.9372	3.3417	3.7975	4.8871	6.2613	7.0757	7.9875	10.147	12.839	20.319	31.691	48.757	74.053
15	1.1610	1.3459	1.5580	1.8009	2.0789	2.3966	2.7590	3.1722	3.6425	4.1772	5.4736	7.1379	8.1371	9.2655	11.974	15.407	25.196	40.565	64.359	100.71
16	1.1726	1.3728	1.6047	1.8730	2.1829	2.5404	2.9522	3.4259	3.9703	4.5950	6.1304	8.1372	9.3576	10.748	14.129	18.488	31.243	51.923	84.954	136.97
17	1.1843	1.4002	1.6528	1.9479	2.2920	2.6928	3.1588	3.7000	4.3276	5.0545	6.8660	9.2765	10.761	12.468	16.672	22.186	38.741	66.461	112.14	186.28
18	1.1961	1.4282	1.7024	2.0258	2.4066	2.8543	3.3799	3.9960	4.7171	5.5599	7.6900	10.575	12.375	14.463	19.673	26.623	48.039	85.071	148.02	253.34
19	1.2081	1.4568	1.7535	2.1068	2.5270	3.0256	3.6165	4.3157	5.1417	6.1159	8.6128	12.056	14.232	16.777	23.214	31.948	59.568	108.89	195.39	344.54
20	1.2202	1.4859	1.8061	2.1911	2.6533	3.2071	3.8697	4.6610	5.6044	6.7275	9.6463	13.743	16.367	19.461	27.393	38.338	73.864	139.38	257.92	468.57
21	1.2324	1.5157	1.8603	2.2788	2.7860	3.3996	4.1406	5.0338	6.1088	7.4002	10.804	15.668	18.822	22.574	32.324	46.005	91.592	178.41	340.45	637.26
22	1.2447	1.5460	1.9161	2.3699	2.9253	3.6035	4.4304	5.4365	6.6586	8.1403	12.100	17.861	21.645	26.186	38.142	55.206	113.57	228.36	449.39	866.67
23	1.2572	1.5769	1.9736	2.4647	3.0715	3.8197	4.7405	5.8715	7.2579	8.9543	13.552	20.362	24.891	30.376	45.008	66.247	140.83	292.30	593.20	1178.7
24	1.2697	1.6084	2.0328	2.5633	3.2251	4.0489	5.0724	6.3412	7.9111	9.8497	15.179	23.212	28.625	35.236	53.109	79.497	174.63	374.14	783.02	1603.0
25	1.2824	1.6406	2.0938	2.6658	3.3864	4.2919	5.4274	6.8485	8.6231	10.835	17.000	26.462	32.919	40.874	62.669	95.396	216.54	478.90	1033.6	2180.1
26	1.2953	1.6734	2.1566	2.7725	3.5557	4.5494	5.8074	7.3964	9.3992	11.918	19.040	30.167	37.857	47.414	73.949	114.48	268.51	613.00	1364.3	2964.9
27	1.3082	1.7069	2.2213	2.8834	3.7335	4.8223	6.2139	7.9881	10.245	13.110	21.325	34.390	43.535	55.000	87.260	137.37	332.95	784.64	1800.9	4032.3
28	1.3213	1.7410	2.2879	2.9987	3.9201	5.1117	6.6488	8.6271	11.167	14.421	23.884	39.204	50.066	63.800	102.97	164.84	412.86	1004.3	2377.2	5483.9
29	1.3345	1.7758	2.3566	3.1187	4.1161	5.4184	7.1143	9.3173	12.172	15.863	26.750	44.693	57.575	74.009	121.50	197.81	511.95	1285.6	3137.9	7458.1
30	1.3478	1.8114	2.4273	3.2434	4.3219	5.7435	7.6123	10.063	13.268	17.449	29.960	50.950	66.212	85.850	143.37	237.38	634.82	1645.5	4142.1	10143.
40	1.4889	2.2080	3.2620	4.8010	7.0400	10.286	14.974	21.725	31.409	45.259	93.051	188.88	267.86	378.72	750.38	1469.8	5455.9	19427.	66521.	*
50	1.6446	2.6916	4.3839	7.1067	11.467	18.420	29.457	46.902	74.358	117.39	289.00	700.23	1083.7	1670.7	3927.4	9100.4	46890.	*	*	*
60	1.8167	3.2810	5.8916	10.520	18.679	32.988	57.946	101.26	176.03	304.48	897.60	2595.9	4384.0	7370.2	20555.	56348.	*	*	*	*

Table 2 – Future Value of an Annuity of $1

Number of Periods	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	2.0100	2.0200	2.0300	2.0400	2.0500	2.0600	2.0700	2.0800	2.0900	2.1000	2.1200	2.1400	2.1500	2.1600	2.1800	2.2000	2.2400	2.2800	2.3200	2.3600
3	3.0301	3.0604	3.0909	3.1216	3.1525	3.1836	3.2149	3.2464	3.2781	3.3100	3.3744	3.4396	3.4725	3.5056	3.5724	3.6400	3.7776	3.9184	4.0624	4.2096
4	4.0604	4.1216	4.1836	4.2465	4.3101	4.3746	4.4399	4.5061	4.5731	4.6410	4.7793	4.9211	4.9934	5.0665	5.2154	5.3680	5.6842	6.0156	6.3624	6.7251
5	5.1010	5.2040	5.3091	5.4163	5.5256	5.6371	5.7507	5.8666	5.9847	6.1051	6.3528	6.6101	6.7424	6.8771	7.1542	7.4416	8.0484	8.6999	9.3983	10.146
6	6.1520	6.3081	6.4684	6.6330	6.8019	6.9753	7.1533	7.3359	7.5233	7.7156	8.1152	8.5355	8.7537	8.9775	9.4420	9.9299	10.980	12.136	13.406	14.799
7	7.2135	7.4343	7.6625	7.8983	8.1420	8.3938	8.6540	8.9228	9.2004	9.4872	10.089	10.730	11.067	11.414	12.142	12.916	14.615	16.534	18.696	21.126
8	8.2857	8.5830	8.8923	9.2142	9.5491	9.8975	10.260	10.637	11.028	11.436	12.300	13.233	13.727	14.240	15.327	16.499	19.123	22.163	25.678	29.732
9	9.3685	9.7546	10.159	10.583	11.027	11.491	11.978	12.488	13.021	13.579	14.776	16.085	16.786	17.519	19.086	20.799	24.712	29.369	34.895	41.435
10	10.462	10.950	11.464	12.006	12.578	13.181	13.816	14.487	15.193	15.937	17.549	19.337	20.304	21.321	23.521	25.959	31.643	38.593	47.062	57.352
11	11.567	12.169	12.808	13.486	14.207	14.972	15.784	16.645	17.560	18.531	20.655	23.045	24.349	25.733	28.755	32.150	40.238	50.398	63.122	78.998
12	12.683	13.412	14.192	15.026	15.917	16.870	17.888	18.977	20.141	21.384	24.133	27.271	29.002	30.850	34.931	39.581	50.895	65.510	84.320	108.44
13	13.809	14.680	15.618	16.627	17.713	18.882	20.141	21.495	22.953	24.523	28.029	32.089	34.352	36.786	42.219	48.497	64.110	84.853	112.30	148.47
14	14.947	15.974	17.086	18.292	19.599	21.015	22.550	24.215	26.019	27.975	32.393	37.581	40.505	43.672	50.818	59.196	80.496	109.61	149.24	202.93
15	16.097	17.293	18.599	20.024	21.579	23.276	25.129	27.152	29.361	31.772	37.280	43.842	47.580	51.660	60.965	72.035	100.82	141.30	198.00	276.98
16	17.258	18.639	20.157	21.825	23.657	25.673	27.888	30.324	33.003	35.950	42.753	50.980	55.717	60.925	72.939	87.442	126.01	181.87	262.36	377.69
17	18.430	20.012	21.762	23.698	25.840	28.213	30.840	33.750	36.974	40.545	48.884	59.118	65.075	71.673	87.068	105.93	157.25	233.79	347.31	514.66
18	19.615	21.412	23.414	25.645	28.132	30.906	33.999	37.450	41.301	45.599	55.750	68.394	75.836	84.141	103.74	128.12	195.99	300.25	459.45	700.94
19	20.811	22.841	25.117	27.671	30.539	33.760	37.379	41.446	46.018	51.159	63.440	78.969	88.212	98.603	123.41	154.74	244.03	385.32	607.47	954.28
20	22.019	24.297	26.870	29.778	33.066	36.786	40.995	45.762	51.160	57.275	72.052	91.025	102.44	115.38	146.63	186.69	303.60	494.21	802.86	1298.8
21	23.239	25.783	28.676	31.969	35.719	39.993	44.865	50.423	56.765	64.002	81.699	104.77	118.81	134.84	174.02	225.03	377.46	633.59	1060.8	1767.4
22	24.472	27.299	30.537	34.248	38.505	43.392	49.006	55.457	62.873	71.403	92.503	120.44	137.63	157.41	206.34	271.03	469.06	812.00	1401.2	2404.7
23	25.716	28.845	32.453	36.618	41.430	46.996	53.436	60.893	69.532	79.543	104.60	138.30	159.28	183.60	244.49	326.24	582.63	1040.4	1850.6	3271.3
24	26.973	30.422	34.426	39.083	44.502	50.816	58.177	66.765	76.790	88.497	118.16	158.66	184.17	213.98	289.49	392.48	723.46	1332.7	2443.8	4450.0
25	28.243	32.030	36.459	41.646	47.727	54.865	63.249	73.106	84.701	98.347	133.33	181.87	212.79	249.21	342.60	471.98	898.09	1706.8	3226.8	6053.0
26	29.526	33.671	38.553	44.312	51.113	59.156	68.676	79.954	93.324	109.18	150.33	208.33	245.71	290.09	405.27	567.38	1114.6	2185.7	4260.4	8233.1
27	30.821	35.344	40.710	47.084	54.669	63.706	74.484	87.351	102.72	121.10	169.37	238.50	283.57	337.50	479.22	681.85	1383.1	2798.7	5624.8	11198.0
28	32.129	37.051	42.931	49.968	58.403	68.528	80.698	95.339	112.97	134.21	190.70	272.89	327.10	392.50	566.48	819.22	1716.1	3583.3	7425.7	15230.3
29	33.450	38.792	45.219	52.966	62.323	73.640	87.347	103.97	124.14	148.63	214.58	312.09	377.17	456.30	669.45	984.07	2129.0	4587.7	9802.9	20714.2
30	34.785	40.568	47.575	56.085	66.439	79.058	94.461	113.28	136.31	164.49	241.33	356.79	434.75	530.31	790.95	1181.9	2640.9	5873.2	12941.	28172.3
40	48.886	60.402	75.401	95.026	120.80	154.76	199.64	259.06	337.88	442.59	767.09	1342.0	1779.1	2360.8	4163.2	7343.9	22729.	69377.	*	*
50	64.463	84.579	112.80	152.67	209.35	290.34	406.53	573.77	815.08	1163.9	2400.0	4994.5	7217.7	10436.	21813.	45497.	*	*	*	*
60	81.670	114.05	163.05	237.99	353.58	533.13	813.52	1253.2	1944.8	3034.8	7471.6	18535.	29220.	46058.	*	*	*	*	*	*

Table 3 – Present Value of $1

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	.5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	.1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	.1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
21	.8114	.6598	.5375	.4388	.3589	.2942	.2415	.1987	.1637	.1351	.0926	.0638	.0531	.0443	.0309	.0217	.0109	.0056	.0029	.0016
22	.8034	.6468	.5219	.4220	.3418	.2775	.2257	.1839	.1502	.1228	.0826	.0560	.0462	.0382	.0262	.0181	.0088	.0044	.0022	.0012
23	.7954	.6342	.5067	.4057	.3256	.2618	.2109	.1703	.1378	.1117	.0738	.0491	.0402	.0329	.0222	.0151	.0071	.0034	.0017	.0008
24	.7876	.6217	.4919	.3901	.3101	.2470	.1971	.1577	.1264	.1015	.0659	.0431	.0349	.0284	.0188	.0126	.0057	.0027	.0013	.0006
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
26	.7720	.5976	.4637	.3607	.2812	.2198	.1722	.1352	.1064	.0839	.0525	.0331	.0264	.0211	.0135	.0087	.0037	.0016	.0007	.0003
27	.7644	.5859	.4502	.3468	.2678	.2074	.1609	.1252	.0976	.0763	.0469	.0291	.0230	.0182	.0115	.0073	.0030	.0013	.0006	.0002
28	.7568	.5744	.4371	.3335	.2551	.1956	.1504	.1159	.0895	.0693	.0419	.0255	.0200	.0157	.0097	.0061	.0024	.0010	.0004	.0002
29	.7493	.5631	.4243	.3207	.2429	.1846	.1406	.1073	.0822	.0630	.0374	.0224	.0174	.0135	.0082	.0051	.0020	.0008	.0003	.0001
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
35	.7059	.5000	.3554	.2534	.1813	.1301	.0937	.0676	.0490	.0356	.0189	.0102	.0075	.0055	.0030	.0017	.0005	.0002	.0001	*
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001	*	*
45	.6391	.4102	.2644	.1712	.1113	.0727	.0476	.0313	.0207	.0137	.0061	.0027	.0019	.0013	.0006	.0003	.0001	*	*	*
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
55	.5785	.3365	.1968	.1157	.0683	.0406	.0242	.0145	.0087	.0053	.0020	.0007	.0005	.0003	.0001	*	*	*	*	*

*The factor is zero to four decimal places

Table 4 – Present Value of an Annuity of $1

Number of Periods	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
21	18.8570	17.0112	15.4150	14.0292	12.8212	11.7641	10.8355	10.0168	9.2922	8.6487	7.5620	6.6870	6.3125	5.9731	5.3837	4.8913	4.1212	3.5514	3.1158
22	19.6604	17.6580	15.9369	14.4511	13.1630	12.0416	11.0612	10.2007	9.4424	8.7715	7.6446	6.7429	6.3587	6.0113	5.4099	4.9094	4.1300	3.5558	3.1180
23	20.4558	18.2922	16.4436	14.8568	13.4886	12.3034	11.2722	10.3711	9.5802	8.8832	7.7184	6.7921	6.3988	6.0442	5.4321	4.9245	4.1371	3.5592	3.1197
24	21.2434	18.9139	16.9355	15.2470	13.7986	12.5504	11.4693	10.5288	9.7066	8.9847	7.7843	6.8351	6.4338	6.0726	5.4509	4.9371	4.1428	3.5619	3.1210
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
26	22.7952	20.1210	17.8768	15.9828	14.3752	13.0032	11.8258	10.8100	9.9290	9.1609	7.8957	6.9061	6.4906	6.1182	5.4804	4.9563	4.1511	3.5656	3.1227
27	23.5596	20.7069	18.3270	16.3296	14.6430	13.2105	11.9867	10.9352	10.0266	9.2372	7.9426	6.9352	6.5135	6.1364	5.4919	4.9636	4.1542	3.5669	3.1233
28	24.3164	21.2813	18.7641	16.6631	14.8981	13.4062	12.1371	11.0511	10.1161	9.3066	7.9844	6.9607	6.5335	6.1520	5.5016	4.9697	4.1566	3.5679	3.1237
29	25.0658	21.8444	19.1885	16.9837	15.1411	13.5907	12.2777	11.1584	10.1983	9.3696	8.0218	6.9830	6.5509	6.1656	5.5098	4.9747	4.1585	3.5687	3.1240
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
35	29.4086	24.9986	21.4872	18.6646	16.3742	14.4962	12.9477	11.6546	10.5668	9.6442	8.1755	7.0700	6.6166	6.2153	5.5386	4.9915	4.1644	3.5708	3.1248
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
45	36.0945	29.4902	24.5187	20.7200	17.7741	15.4558	13.6055	12.1084	10.8812	9.8628	8.2825	7.1232	6.6543	6.2421	5.5523	4.9986	4.1664	3.5714	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
55	42.1472	33.1748	26.7744	22.1086	18.6335	15.9905	13.9399	12.3186	11.0140	9.9471	8.3170	7.1376	6.6636	6.2482	5.5549	4.9998	4.1666	3.5714	3.1250

Table 5 – Monthly Mortgage Payments

(Monthly payments necessary to repay a $10,000 loan)

Rate of Interest	Loan Term				
	10 years	15 years	20 years	25 years	30 years
7½%	$118.71	$ 92.71	$ 80.56	$ 73.90	$ 69.93
8%	121.33	95.57	83.65	77.19	73.38
8½%	123.99	98.48	86.79	80.53	76.90
9%	126.68	101.43	89.98	83.92	80.47
9½%	129.40	104.43	93.22	87.37	84.09
10%	132.16	107.47	96.51	90.88	87.76
10½%	134.94	110.54	99.84	94.42	91.48
11%	137.76	113.66	103.22	98.02	95.24
11½%	140.60	116.82	106.65	101.65	99.03
12%	143.48	120.02	110.11	105.33	102.86
12½%	146.38	123.26	113.62	109.04	106.73
13%	149.32	126.53	117.16	112.79	110.62
13½%	152.28	129.84	120.74	116.57	114.55
14%	155.27	133.18	124.36	120.38	118.49
14½%	158.29	136.56	128.00	124.22	122.46
15%	161.34	139.96	131.68	128.09	126.45

Table 6 – Monthly Installment Loan Payment

(To repay a $1,000 simple interest loan)

Rate of Interest	Loan Term					
	6 Months	12 Months	18 Months	24 Months	36 Months	48 Months
7½%	$170.33	$86.76	$58.92	$45.00	$31.11	$24.18
8	170.58	86.99	59.15	45.23	31.34	24.42
8½	170.82	87.22	59.37	45.46	31.57	24.65
9	171.07	87.46	59.60	45.69	31.80	24.89
9½	171.32	87.69	59.83	45.92	32.04	25.13
10	171.56	87.92	60.06	46.15	32.27	25.37
10½	171.81	88.15	60.29	46.38	32.51	25.61
11	172.05	88.50	60.64	46.73	32.86	25.97
11½	172.30	88.62	60.76	46.85	32.98	26.09
12	172.55	88.85	60.99	47.08	33.22	26.34
12½	172.80	89.09	61.22	47.31	33.46	26.58
13	173.04	89.32	61.45	47.55	33.70	26.83
14	173.54	89.79	61.92	48.02	34.18	27.33
15	174.03	90.26	62.39	48.49	34.67	27.84
16	174.53	90.74	62.86	48.97	35.16	28.35
17	175.03	91.21	63.34	49.45	35.66	28.86
18	175.53	91.68	63.81	49.93	36.16	29.38