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## Personal Finance in Today's Complex World

Thomas Fredricks


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## Introduction

The goal of achieving financial security is within everyone's reach.
But realizing that dream may require sacrificing some of today for a better tomorrow. The goals are as varied as individuals themselves and the means through which those ends can be achieved. "Tomorrow" may involve a second home, travel, or a comfortable retirement. It could mean helping children pay for higher education, their wedding, or their home. And of course it could be a hedge against the unexpected.

Individual investors have to develop the discipline of setting aside money through some kind of vehicle if they want to arrive at their goals and realize their dreams. Those means could be as simple as establishing a savings account or an interest-bearing certificate of deposit, or certain types of insurance during one's working career. It could be as complex and volatile as the stock or bond markets, or speculating in commodity trading - especially futures - once the investor is more established.

Personal savings involves more than putting aside funds for tomorrow. It means utilizing credit and mortgages, as well as learning how to budget cash for both short and long terms. It means getting a basic understanding of the confusing, multiple parts of income, gift, and estate tax laws. It means setting up the beginnings of a retirement plan, whether that plan is provided by an employer or not, and understanding social security as part of that plan. As for investing, it is important to be able to read financial statements, ratios, and other measurements of the health of a business. Insurance also plays a role in the world of savings and investing - universal life, term, and perhaps long term care. I will cover savings, the markets and insurance in depth in Chapters 1, 2, and 9.

An individual might think that the personal strategies available to him or her are unique and different from those employed by businesses. However, they are, in reality, very nearly identical. Finance in the corporate world has more sophisticated jargon that could seem alien or confusing to the individual investor, but in essence the strategies for both are the same when you strip away that jargon. The bottom line then becomes - whether considering a multinational corporation or a family - it is necessary to take some earnings and put them in a safe place in order to justify risk and sacrifice. And both types of entities have to look at diversifying at some point. That's where a good financial planner comes in, one whom an individual can trust to allocate his or her funds to both the secure and the risky for a best rate of return. Of course, in the corporate world, the return would be to investors.

In this book I will explore some of the best strategies I have found in my research, practice and teaching for navigating the world of personal finance.


# 1 Savings and Budgeting: Budgets, Certificates of Deposit, Money Market Accounts, Bonds, Treasury Bills, Reverse Mortgages 


#### Abstract

Savings for some future event, at its most basic level, is the disciplined act is putting money in some vehicle that will give a return on one's investment. It can be as simple as a savings passbook account or CD, or as complex as bonds, notes and mortgages. The more complex the vehicle, the more the return and risk vary.


### 1.1 Savings and Budgeting

Individuals decide to save part of their income for some future needs. Those needs vary with individuals, levels of income, and types of plans. It could be for something as short-term as a vacation. It could be to help children with their education, wedding, or first home. Or it could be as long-term as acquiring a second home. The ultimate for many individuals is savings as a cushion for retirement, even if contributions to an employer's plan have
 already reduced net take home pay. The length of time involved to reach the goals means the techniques and financial instruments broaden from the simple to the more complex.

For an individual to save some of their cash inflow necessitates budgeting, a plan usually set down in
 writing, for a certain period of time. Typically it is usually for a short term like a month, but it could be for as long as a year. For example, the individual puts down on paper all the sources of their income - wages, interest, dividends, etc, net of taxes. The next thing is to list current and usual expenditures, such as mortgage or rent, food, gas, insurance premiums, savings, entertainment and clothing allowances, charity, medical expenses, investments, utilities, and anything else the family regularly pays out. Then long-term outlays should be considered, whether they are planned for or meant to cover the unexpected. Putting aside money for this contingency should be included in any budget.

The plan should then be reviewed by members of the household to determine if some items need to be adjusted, reconsidered, or perhaps eliminated. Questions to ask would include alternatives, such as, "Will we need a new car in six months?" or "The refrigerator is 10 years old now. Will it last much longer or should we replace it now before it has to be repaired?" or "Do we really need to go on a big vacation this year or can we wait awhile?" The main consideration is, of course, if there is enough cash inflow to cover all that needs to be done.

| Sample Budget for John and Jane Doe Month of July 20xx |  |  |  |
| :---: | :---: | :---: | :---: |
| INCOME |  | EXPENSES |  |
| John's wages | 1,200 | Condo Mortgage | 600 |
| Jane's pension | 1,000 | Real Estate Taxes | 1,200 |
| Interest income | 100 | Condo fees | 100 |
| Rental income | 1,300 | Utilities, cable | 600 |
| Total Income | 3,600 | Medical (in savings) | 50 |
|  |  | Trip next year | 500 |
|  |  | Food | 500 |
|  |  | Savings | 100 |
|  |  | Total Expenses | 3,650 |

## Uhoh! John and Jane are facing a deficit this month. Where do they cut? What's negotiable and what's fixed?

Looking at expenses, it appears there are four areas that can be considered "negotiable" - their trip, medical, food, and savings. All other costs are fixed.
"Trip next year" looks like the best place to consider. Will they need $\$ 6,000$ for that trip ( $\$ 500$ per month for 12 months)? Could they get by with a less expensive vacation, say $\$ 5,000$ which would require about $\$ 420$ per month? If not, could they put that trip off for awhile?

Having a budget that lays out income and expenses is a way to prevent unpleasant surprises down the line.

One way to help prepare for short-term savings is a simple passbook account. This medium has advantages: (1) easy to withdraw from; (2) withdrawals are made without penalty; and (3) the individual is exposed to a very low level of risk. ${ }^{1}$ Its disadvantages are that the rate of return is generally low. By the same token, its easy accessibility can make this account subject to over-use when handled without discipline. Other types of savings include "Christmas clubs" and checking accounts which pay interest on the balances.


### 1.2 Certificates of Deposit

A longer term investment would be an interest-bearing Certificate of Deposit (CD). This medium has a slightly higher rate of return than a savings passbook, is intended to be held until maturity, and is also low risk. The biggest disadvantage to a CD is that early withdrawal will result in a substantial penalty and tax consequence. Savings accounts and CDs actually represent a loan to the financial institution: funds are given to the bank or credit union to use for its lending activity but are in reality liabilities of the institution which must be repaid to the owner when called for.

The shorter time period to maturity of CDs means less risk but also lower return. After all, the funds an individual has put into these accounts are loans to the financial institution. The shorter the time that institutions have to use that money before returning it to depositors, the lower the interest rate they are willing to pay. By the same token, as maturity lengthens, the investor is at risk for loss of principal value. This issue applies only when the principal might exceed the FDIC limit of $\$ 250,000$.

### 1.3 Money Market Accounts

Money market accounts, including some checking accounts, are mutual funds which pool the money of many individuals. These amounts are invested in very short-term obligations, such as treasury bills and notes, CDs, commercial paper, and other debt instruments. Money market accounts are not protected by the FDIC and there is no restriction on the time or frequency when monies can be withdrawn. Individuals might choose to avoid the ease with which mutual funds can be withdrawn and invest directly in short-term obligations such as those listed above. However, while this direct investing may result in a higher return, it also entails a higher risk.

### 1.4 Savings Bonds

The further you get from the simple savings accounts and CDs, the more complicated the considerations become. For example, savings bonds are government issued and purchased at a discount. They can be redeemed early with penalty or held to maturity. The term for Double E bonds is currently between six and seven years but interest rates decline if they are held for longer periods. Double H bonds pay interest at regular intervals.


### 1.5 Treasury Bills

Investments in United States Government Treasury bills require large amounts of cash and have various maturities. They are purchased directly from a Federal Reserve Bank in \$10,000 denominations and mature in ten years. Treasury notes, on the other hand, have face values between $\$ 1,000$ and $\$ 10,000$, are purchased at a discount like Double E bonds, and mature in one to ten years. The interest on direct obligations government bonds is exempt from state income tax. However, bonds from government agencies such as Fanny Mae are subject to that tax consequence unless purchased before December 31, 1987.

Some select municipal bonds, also called munis, are exempt from both federal and state income taxes while some are only exempt from state taxation. A tax professional is the best source of information on this issue for an investor's state.

Ultimately there is a cost for saving a portion of your income, known as the "opportunity cost." When funds are invested in an obligation which has a specific maturity date before it can be redeemed without economic consequences, the investor sacrifices his or her liquidity:
 if the speedboat one has always wanted suddenly comes up for sale and that person doesn't have ready cash with which to take advantage of the deal, you may lose out. It should be obvious that savings and investing involve both negatives and positives.

In considering one's regular net income, some individuals over-withhold on their income taxes as a form of forced savings to receive a larger income tax refund next year. The person is actually lending money to the government but not receiving any interest on it. It would definitely be to one's advantage to put the difference in withholding tax into a vehicle that would give the individual more of a return than the government does, which amounts to zero.

Putting savings into conventional financial institutions such as banks and credit unions is a safe and simple way to invest. But as you mature in your economic understanding you should consider alternatives, expanding to more complex transactions, such as "Zero Coupon" bonds. These pay no periodic cash interest and are issued at a deep discount; the investor receives the interest at maturity. The return is usually greater but these bonds are dangerous and extremely risky. Also the investor generally pays income tax on that
 interest before actually receiving the proceeds.

Another alternative is borrowing money to fund large purchases, whether for one's own use or to obtain a rental property. This sounds counter intuitive but it can be to the investor's advantage. The buyer puts
 up a cash down payment and borrows the remainder. However this type of transaction involves the consideration of several factors, including one's ability to meet the commitment incurred in borrowing. The current mortgage rate is very low, in many cases below $4 \%$, and the interest is deductible on an income tax return. When the property purchased is for rental, all expenses incurred for the upkeep and maintenance of the unit are deductible and the property is subject to depreciation.


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A mortgage analysis is not simple and can involve uncertain future conditions in the economy. I am often asked by clients whether they should pay off or refinance their home mortgages. My answer is that it depends on how much principle is left to pay, what their current interest rate is, how long a term they are locked into, and other considerations.

### 1.6 Reverse Mortgages



There is a way for seniors to turn home equity into a ready cash source when other alternatives are not available: The reverse mortgage may have some merit in certain cases. An individual at least 62 years of age in need of fast cash with no other options available would receive funds using their home equity as collateral. A lending institution would give you cash based on the following: (1) age of the homeowners, (b) current interest rates, (c) the fair market value (FMV) of the home, and (d) government limits on the amount that would be available. The debt would not be repaid until the last homeowner leaves or dies and the estate then takes on the liability. If the home is sold for less than the balance, the estate would only pay the difference.

There are pros and cons on a reverse mortgage, the most obvious benefit being that it may be the only way to obtain cash without incurring any tax consequences. The biggest
 disadvantages are: (1) it requires the owners to remain in the home for an extended period of time, (2) the estate is deprived of a valuable asset, (3) a reverse mortgage must be a first mortgage,
 not a home equity loan, and (4) some costs, such as points at closing, are charged at $2 \%$ of the home's property value.

A reverse mortgage is a good alternative if the homeowners cannot meet their current obligations, or if the property is in danger of foreclosure.

# 2 Equities: Stocks, Derivatives, Bonds 


#### Abstract

Investing in the stock market can be financially rewarding. It can also be risky. A basic understanding of stocks is vital if an individual hopes to successfully navigate the complexities of investing.


### 2.1 Corporations and Individual Stocks

Corporations are really artificial entities with authority to operate as a "person" when given that power by the state or federal government. Although a corporation may be owned by a single person, most are owned by large groups of individuals. One of the many advantages of the corporate form is its ability to raise large amounts of capital by attracting investors who then become owners. Those owners are issued a piece of paper, called a stock certificate, which attests to their position. These shares of stock
 also entitle the owner to receive any dividends declared, sell the stock, or gift it to family members. As an owner, the investor can vote his or her shares of stock but most of the time small holders do not travel to annual meetings or pass on their votes to management by proxy, although both are viable options.

The stock certificate routinely shows: (A) the name of the corporation, (B) its address, (C) the name of the stockholder, (D) the number of units of ownership, i.e., number of shares owned, (E) signatures of the Treasurer and President, (F) value of the certificate, and (G) Committee of Uniform Securities Identification [CUSIP], as shown below.


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Investors can either keep shares in their possession or allow them to be kept at the broker's office, also called keeping them in the "street name." This second option allows for easier selling of the shares and avoids the risk of loss of the physical documents.

b)One of the basic privileges of owners, known as the preemptive right, is the ability to buy new stock when the corporation issues it and thus maintain their proportionate ownership without the company diluting that ownership by a stock issuance. Conversely, there may be restrictions on the ability to transfer shares to anyone else if the corporate bylaws require the stock to be offered back to the company first. This restriction is typically more common in smaller companies. This is a tactic to prevent hostile takeovers: an acquisition by an individual or corporate entity desiring only to siphon off cash and shut down the original issuing business.

There are two types of stocks - common and preferred. Common is usually the voting stock; preferred has the first right to any dividends declared and first claim on any cash if the corporation is liquidated. Preferred stock dividends are a fixed amount expressed in dollars if the stock is no-par. Otherwise it is a percentage if there is a par value. For example, General Electric (GE) may issue preferred for $\$ 8.00$ per share with a dividend, or it may be expressed as $8 \%$, if the stock has a par value of $\$ 100$ per share. Usually preferred stock does not fluctuate as much in price as common stock, due to its right to receive dividends first: preferred is much more stable than common.

Corporations which offer preferred stock usually attach a cumulative feature which means that if dividends are not paid in any year, they will have to be paid at some future date and before common shareholders receive anything. It is an attractive feature to preferred shareholders but unattractive to the common investor. As a result it may be offered with a call provision, which means the corporation can redeem the preferred stock at a call premium. When the stock is called, any dividends in arrears at that time would have to be paid. For example, if the company declared but did not issue any cash dividends during the three preceding years, those dividends would have to be paid at the time the stock is called before holders of common stock are paid.

Corporations may also issue preferred stock with a convertible feature which allows the shareholders to change their preferred shares for common share at some fixed
 ratio. For example, you might be able to convert one preferred share into four common shares. This is irreversible, but means that if the company becomes more profitable, the investor could cash in on the more valuable common stock.

If a company hopes to grow without issuing new stock - thereby diluting ownership and earnings - it may declare a stock dividend. This may be in the form of additional shares but doesn't give the investor any extra income. In fact, the Internal Revenue Service treats most stock dividends as nontaxable only if there is no option to take either cash or stock: nothing is received and the holder has no value except that he or she now has more shares, more paper certificates. If a corporation wishes to maintain a history of dividends but elects not to pay out cash, it will declare a stock dividend. The accounting profession requires that the company debit Retained Earnings ${ }^{2}$ equal to the fair market value of the shares if the stock dividend is considered small: say $20 \%$ to $25 \%$ of the number of shares outstanding. If it is considered larger than this, the debit should be equal only to the legal value which is par or the stated value of nopar stock, an arbitrary value assigned to this stock but not shown on the certificate. Large stock dividends are more like stock splits because the stock prices decrease. For example, a 2-for-1 stock split typically will result in the market price dropping $50 \%$. Instead of the 100 shares you owned worth $\$ 20$ each, you now own 200 shares worth $\$ 10$ each. Stock dividends have favorable tax advantages because they turn ordinary income into long-term capital gains (LTCG): because stocks are always held for more than one year, a long term. As of 2012, LTCG will be taxed at $0 \%$, if the taxpayer's rate on their federal return is $15 \%$ or lower, or at $15 \%$, if that rate is $16 \%$ or higher.

An investor should not try to time the market. It is nearly impossible to know when a stock price high or low has been reached based on price alone. Financial advisors usually tell their clients to stay in for the long haul. There is nothing wrong in trying to
 cash in on your profits by selling some of your shares because you're not playing with your own money. It is similar to being at a casino and gambling only with your winnings. However, a better strategy is to use the fundamental tools of statement analysis to determine which company to invest in. Such tools are well known among accounting and financial analysts. They include Earnings per Share (EPS) which is measured by taking the bottom line net earnings and dividing that number by the outstanding shares. To the investment community that represents one of the most useful tools in evaluating a corporation's financial performance. It is comparable to adding up all the income of a household and then dividing that number by the total number of persons in the household. It gives you a clear picture of how much income each person would have a share in.

A related measure used by financial advisors is the Price Earnings Ratio. This represents the market view of the future profitability of the corporation. The higher the multiple, the most optimistic the market is about this company. In the "dot.com" era, multiple was twenty or thirty times earnings, and for companies with a loss it was infinity because in this case the numerator was a negative number. That was a high risk time and the bursting "bubble" spelled trouble for many people. In contrast today a multiple of 15 would be relatively reasonable, but this could change as it did in the late 1990s.

Many people who invest in the market are often interested in a corporation's current income. They are looking for dividends and are concerned with the dividend payout ratio, the amount of earnings distributed to the shareholders rather than being reinvested in the company. In companies that finance their growth internally, you would find a low dividend payout ratio.

Another related measure is the dividend yield which is computed by dividing the dividend paid by the current market price. Here a result of $6 \%$ to $7 \%$ would be fairly high. One more measure is the book value per share. This represents the stockholder's equity minus the preferred stock plus any dividends in arrears divided by the total number of shares outstanding. It is not a very meaningful value because it represents what a stockholder would receive if the company sold all of its assets at exactly book value and paid all of its liabilities. Perhaps in an entity like an investment club it would have some meaning, but not in general.

There are other measured used by lenders that anyone can study to gauge the performance of a company. These include the current ratio, debt to equity, accounts receivable and inventory turnovers, the rate of return, and the number of times the interest is being met. These ratios are also useful in evaluating credit risk.

Here is an example of a hypothetical corporation, Fantasy Inc. It was formed in 2010. Their financial statements include the following: (a) income statement, (b) balance sheet, (c) retained earnings statement, and (d) statement of stockholders equity, which are shown on pages 23-24.

There are short-term current liquidity measures. They include the current ratio which is measured by dividing current assets by current liabilities. For Fantasy Inc, this is $\$ 135,000 / 30,000$ which equals $\$ 4.5: 1$. This means that Fantasy has $\$ 4.50$ of current assets for each $\$ 1$ of current liabilities.

There is a rule of thumb that $\$ 2: 1$ is the maximum any company should have, but I have seen companies with smaller numbers that are in better current liquidity position, and other companies with higher ratios in worse conditions. What is important is to make comparisons with prior periods for the company as well as other companies in the same industry.

Another related measure often used to measure short-term liquidity is the "acid test" or "quick" ratio. It includes only cash, marketable securities, and short-term receivables, excluding inventories and prepaids. For Fantasy this is $\$ 50,000 / 30,000$ which equals $\$ 1.7: 1$. It tells that the company has $\$ 1.70$ of quick assets for each $\$ 1$ of current liabilities. Here the "rule of thumb" is $\$ 1$. Again, comparisons are important.


Another thing to be aware of is the opportunity to manipulate date by entering transactions at or near the end of statement date. For example, if Fantasy paid off $\$ 15,000$ of its accounts payable, its current ratio of $\$ 120,000 / 15,000$ would increase from $\$ 4.5: 1$ to $\$ 8: 1$ without any real economic difference. You must be careful in using ratios. Again, it is best practice to make comparisons with prior periods and other companies in your industry. Places to look for industry comparisons include Robert Morris Associates, Standard and Poor, or other financial publications.

Ratios on long-term liquidity could include the total debt to total assets. For Fantasy Inc. this would be $\$ 105,000 / 400,000$ which equals $26 \%$. This is a fairly low ratio.

Still another measure of long-term liquidity is long-term debt to total debt. For Fantasy Inc., this is $\$ 75,000 / 105,000$ which equals $71 \%$. This is a fairly high percentage.

An additional measure of this type of liquidity is the debt to equity ratio. For Fantasy Inc, this is $\$ 105,000 / 295,000$ which equals $36 \%$. This is a fairly low number.

A measure of safety is the number of times the interest charge is being met. You divide the net income before interest expense and income taxes by the interest expense. For Fantasy Inc., this is $\$ 84,000 / 5,000$ which equals 17 times. This means the company's net income could decrease by 17 times before the creditors - including stockholders - would be unlikely to be paid.

Ratios involving the measure of the company's ability to collect its receivables involve the accounts receivable turnover. That is measured by dividing credit sales by average receivables. An acceptable way to measure average receivable quickly is to add the current receivables to prior period receivables and divide by two (2). For Fantasy Inc, this is $(\$ 500,000 / 25,000)+30,000 / 2$ which equals 18 . This means that on average, receivable turn into cash about 18 times a year. A related measure easier to visualize is the number of days' sales in receivable. It is calculated by dividing 365 by the turnover ratio. For Fantasy Inc., this is $365 / 18$ which equals 20 . This means that they on average collect their receivables in 20 days. If their credit terms are $\mathrm{n} / 30$, their customers are paying very fast which means they are probably extending credit to very wealthy people.

Still another measure of liquidity is the inventory turnover. It is calculated by dividing cost of goods sold by the average inventory. For Fantasy Inc., this is $\$ 240,000 / 85,000+80,000 / 2$ which equals 2.9 . This is a very low number. Grocery stores have a high number while jewelry stores or land development companies have a very low number. A related measure is the number of days the inventory is around. For Fantasy Inc., this is $365 / 2.9$ which equals 126 days. This should be compared to prior periods and other companies in their industry.

A profitability measure used by financial analysts that you see on the cable channel CNBC is Earnings per Share. It is measured by dividing net income after preferred dividends from the net earnings ( $\$ 2.50 \times$ 2,000 shares) $\$ 63,000-5,000$ which equals $\$ 58,000 / 20,000$ which equals $\$ 2.90$. This means that if the corporation paid out all of its earnings, each shareholder would receive $\$ 2.90$ for each share owned. A related measure used by investors and analysts is the price earnings ratio which is measured by dividing the market price by EPS. For Fantasy Inc. this is $\$ 30 / 2.9$ which equals 10 times.

Other measures of profitability could include rate of return which is measured by dividing net earnings by average assets. For Fantasy Inc., this is $\$ 63,000 / 295,000+330,000 / 2$ which equals $20 \%$, a relatively high percentage.

A measure useful to common stockholders is the return on common stockholders' equity. It is calculated by dividing net earnings minus the preferred dividends by the average common stockholders' equity. For Fantasy Inc. this is $\$ 63,000-5,000 / 295,000+330,000 / 2$ which equals $19 \%$.

Confusing? Could be. Does it require a mathematics genius to figure it all out? Not really. In fact there are even more measures used by investors and analysts to predict the company's ability to pay its bills and be profitable. These are the very basics of evaluation and well worth the time to master, if an investor hopes to be successful in the market.

### 2.2 Values of Individual Stocks

There are several values associated with stock. There is par value which is an arbitrarily assigned legal value, technically the face value of the stock certificate. It is often a very low number to avoid possible later assessments to shareholders if issued below the value. Most stocks today have a no-par value. But the true value for a stock would be its current fair market value. This is the price a buyer would pay and a seller would sell for. Most stocks today have a no-par value. But the true value for a stock would be its current fair market value. If stock is valued at $\$ 100$ but sells for $\$ 90$, the investor could be responsible for the $\$ 10$ difference. This is the price a buyer would pay and a seller would sell for. In publically held companies it is an easy value to determine because the stock is actively traded and prices are readily available. However in closely-held corporations - usually a small firm with only a small number of stockholders - it requires a valuation using techniques like capitalizing earnings or cash flow by a cost of capital or some other acceptable measure of value.

Stock prices fluctuate daily or even hourly as economic conditions change. They sometimes move in strange ways that cannot be explained by financial or economic factors. For example, during the 1970s, the stock market as a whole took a deep plunge when then-President Gerald Ford fell while deplaning from Air Force 1 and hit his head on the exit door. The only explanation for such a downward movement is uncertainly due to the possibility of a new president if Mr. Ford were to become incapacitated.

The measure of stock volatility is call beta. This is a statistic used to measure how much a particular stock moves in relation to the total market. A positive " 1 " means that a stock changes exactly, and in the same direction, as the overall market. A negative " 1 " means that it moves in the opposite direction, going up in price when the market is generally declining. A " 0 " would means that this stock is completely independent of market movement.

Some investors purchase "penny" stocks, available only on the Over the Counter (OTC) market. These are shares that are sold for less than $\$ 1.00$ and are very risky. However, if they move upward they can be very profitable. Most wise investors avoid the "penny" stocks and invest only in "blue chip" stocks issued by corporations that are well established and have a history of steady earnings and growth. Penny stocks are usually shares in new companies or in those which may go into bankruptcy. There are no Securities and Exchange Commission (SEC) oversight or compliance issues in this specific OTC market. Companies that trade there sometimes pay for publicity to increase the value of their stocks.



Other information for FANTASY, Inc. -

1) Previous year Accounts receivable - $\$ 30,000$
2) Previous year Inventory - $\$ 8,000$
3) Previous year Total assets - $\$ 375,000$
4) Market price of Fantasy stock is $\$ 30$ per share
5) Stockholders' Equity - $\$ 330,000$

| FANTASY, INC. <br> Income Statement <br> Year Ended December 31, 20xx |  |  | FANTASY,INC. <br> Stockholders' Equity <br> April 30, 20xx |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Net sales revenue | S | 500,000 | Paid-in Capital | \$ | 50,000 |
| Cost of goods sold |  | 240,000 | Preferred stock, $6 \%$, ? Par, 675,000 shares authorized, 240,000 shares issued |  | 30,000 |
| Gross Profit | \$ | 260,000 | Common stock, par value $\$ 1$ per share, 9,000,00 shares authorized, 1,330,000 |  |  |
| Operating expenses (detailed) |  | 181,000 | shares issued and outstanding |  | 75,000 |
| Operating income | \$ | 79,000 | Total paid-in capital | \$ | 155,000 |
| Other gains(llosses) |  | 17,000 | Retained earnings |  | 140,000 |
|  |  |  | Total stockholders' equity | \$ | 295,000 |
| Interest expense |  | -6,000 |  |  |  |
| Income fom continuing operations before income tax |  | 90,000 |  |  |  |
| Income taxexpense |  | 36,000 |  |  |  |
| Income from continuing operations | S | 54,000 |  |  |  |
| Discontinued operations, income of $\$ 35,000$ less income tax of $\$ 14,000$ |  | 21,000 |  |  |  |
| Income before extraordinary item | \$ | 75,000 |  |  |  |
| Extraordinary flood loss, $\$ 20,000$ less income taxsavings of $\$ 8,000$ |  | -12,00 |  |  |  |
| Net income | \$ | 63,000 |  |  |  |
| Earnings per share of common stock |  |  |  |  |  |
| (20,000 shares outstanding): |  |  |  |  |  |
| Income from continuing operations | S | 2.70 |  |  |  |
| Income fromdiscontinued operations |  | 1.05 |  |  |  |
| Income before extraordinary item | \$ | 3.75 |  |  |  |
| Extraordinary loss |  | -0.60 |  |  |  |
| Net income |  | 3.15 |  |  |  |

### 2.3 Derivatives



Derivatives are used widely in financial markets, but they are not always understood. We'll cover the basics in this chapter. This will give you a fundamental understanding of what derivatives are and how they work.

Many investors are familiar with the term "spot market". A spot market is simply a market where you pay cash and get something in return. Sometimes spot markets are referred to as cash markets. The stock market is an example of a spot market. You pay cash and in return receive a stock. There are also spot markets for commodities like gold, oil, and corn. You pay cash and receive a bar of gold, a barrel of oil, or a bushel of corn.

In addition to spot markets there are derivatives markets. What is a derivative? A derivative is a financial instrument whose value is derived from the value of some other asset. This other asset is called the underlying asset. The two main classes of derivatives are commodities and financial derivatives. The price of a commodities derivative is based on movements in the price of commodities like gold, oil, and corn. The price of a financial derivative is based on the movements in price of a financial asset, such as a stock.

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In the financial news we often hear of executives being compensated with stock options. Options are an example of a derivative. There are two main types of stock options - put options and call options. Stated simply, a put option gives you the right to sell something at a designated price. A call option gives you the right to buy something at a designated price. Executives are generally given call options.

Let's look at an example: Suppose the stock of Apex Company is trading at $\$ 20$ per share on January $1^{\text {st }}$. At this time, the CEO of Apex Company is given call options. These call options allow the CEO to purchase Apex stock at the designated price of $\$ 20$ per share at any time during the next year. You can see that the CEO now has an incentive to manage Apex in such a way that Apex's stock price will go up. If by June 1 , the price of Apex is at, say, $\$ 30$ the executive would surely be interested in exercising his or her options to buy Apex stock for $\$ 20$. It's an immediate $\$ 10$ per share profit! This is one way executives are given incentives to effectively manage their companies.

You might be asking, "What if the price of Apex stock had gone down by June 1?" If at June 1 , the stock of Apex was at $\$ 15$, the executive would not be interested in exercising the option to buy at $\$ 20$. In fact, no one would. In this case the call option is worthless.

In our example, the executive was given the right to purchase stock at $\$ 20$. The designated price of $\$ 20$ is referred to as the strike price. Our example showed that when the market price of the Apex stock was below the strike price of the call option, it effectively made the call option worthless. When the market price was above the strike price of the call option, it definitely had value to the CEO. Wouldn't you like to be able to purchase something for $\$ 20$ that you could immediately sell for $\$ 30$ ?

The value of the call option in our example was entirely derived from the movement in the price of another asset. In this case, Apex stock. This brings us back to our definition of a derivative. A derivative is a financial instrument whose value is derived from the value of something other asset. The value of stock options is derived from the price of the underlying stock. Stock options are derivatives.

Other common derivatives are futures contracts and forward contracts. Futures and forwards are an agreement to buy or sell some underlying asset in the future. In the spot, or cash, market you buy a bushel of corn to be used immediately. In the futures and forwards markets you enter an agreement to buy or sell a bushel of corn at some point in the future.

There are differences between futures and forwards contracts, but their fundamental principles are the same - they are agreements about a transaction that will occur in the future. For our discussion, we will focus on futures contracts. Futures are traded on a futures exchange.

Now let's look at some basic features of futures contracts. All futures contracts are based on the value of some underlying asset. This underlying asset could be a commodity like corn, gold, or oil. All futures contracts have an expiration, or settlement, date. Settlement can either be in cash or in delivery of the underlying asset. All futures contracts specify an exact measure of the underlying asset. For example, 100,000 barrels of oil, or 100 ounces of gold, or 20 bushels of corn.

Suppose you purchase a futures contract that agrees to purchase 20 bushels of corn three months from now at a price of $\$ 12$ per bushel. This most likely would be speculative. You will be hoping that the spot, i.e., cash., price of corn in three months is higher than $\$ 12$. If the spot price for corn is $\$ 15$ in three months, you
 will buy the corn for $\$ 12$ per bushel, as stated on your futures contract, and then immediately sell it in the spot market for $\$ 15$ - an automatic $\$ 3$ per bushel profit. If however, the spot price of corn is lower than $\$ 12$ in three months, say, $\$ 10$, then you will be losing money on that futures contract. You will have to buy the corn for $\$ 12$ per bushel, and sell it in the spot market for only $\$ 10$. You will lose $\$ 2$ per bushel.

Derivatives are complex and very risky financial instruments, and generally only seasoned and wellfunded investors should endeavor to trade them. Also, the processors of commodities, such as farmers, would hedge rather than speculate. Most individual investors never purchase derivative instruments directly. They rely on professional money managers who are well-educated in finance and financial markets to manage the trading of derivatives. If you own mutual funds, it is possible that a small portion of the portfolio is made up of derivative instruments. Money managers often use derivatives to hedge market risks.

Some wealthy investors can put their money in so-called hedge funds. These funds trade heavily with derivatives. These investors would enter into an opposite transaction than investors in derivatives: they attempt to exploit inefficiencies in the markets by taking risky positions involving derivatives and nonderivatives rather than protecting price declines for farmers and increases for producers.

While we've talked about just a couple examples of derivatives, it is worth noting that there are many, many derivative securities.

### 2.4 Bonds

Bonds are really investments in debt. They are actually loans which represent an asset to the investor (who is the buyer) and a liability to the borrower (the issuer). These can include government-issued instruments such as Series EE or H bonds, but usually have corporate issuers. They have a maturity date of 20 to 30 years for corporate bonds and the interest rate is typically fixed at $4 \%$ or $5 \%$. This rate is known as the contract or stated rate. To compute the amount of interest, this rate is multiplied by the face or principal value. It also represents the maturity value which the holder receives on the maturity date, if the company does not default. Bonds are issued in various denominations, but the usual face value or principal is $\$ 1,000$. That figure also represents the maturity value, the money received by the investor at the maturity date.

For example, a General Electric bond issued at $5 \%$ with a fixed value of $\$ 1,000$ would entitle the holder to receive $\$ 50$ per year $(\$ 1,00, \times 5 \%)$ and a return of $\$ 1,000$ at maturity.

From the date of issue to the date of maturity, the price or fair market value will change daily because the real or effective rate is constantly changing due to different economic conditions, in the same way that the stock market changes. The bond will either sell at a premium, that is a price above par, or at a discount, a price below par. Because the stated rate and the face amount are fixed, the only change that can be made is to adjust the market price.

For the investor, the premium price reduces the income earned because these debt instruments were bought at a lower-than-face value, so the investor would not actually recoup the price they paid if the bonds are held to maturity ${ }^{3}$ The discount price, on the other hand, increases the amount of interest earned if held to maturity because the purchase price was less than face value but they are being redeemed at the higher price.

For tax and accounting purposes, the discount is amortized by what is known as effective interest method. This is a complicated mathematical formula that is best computed by a finance or accounting professional.

When bonds are issued with a security backing in the form of collateral, they are called mortgage bonds, as opposed to bonds issued with no security backing. It can be mistakenly assumed that mortgage bonds are safer than non-mortgage bonds. This would be true only if the mortgage and unsecured bonds were from the same entity because mortgage bonds have the security of property and other assets behind them.

The debtor responsibilities are spelled out in a legal document call the indenture. These include, among others, the stated rate of interest, interest payment dates, covenants required, and security. Today the interest and principal most bonds are registered in a company's records. In days past bonds were called "bearer bonds" which meant whoever turned in the document would receive the money.

The debtor - the issuing entity - can call in the bonds at a date before the stated maturity. This is done when the market rate of interest is declining in relation to the contract or stated rate. In this case the borrower or issuer sees a chance to save money by redeeming bonds with a higher rate of interest than the current market rate and issuing new bonds at a lower rate. This is the same as people who refinance their mortgages when real estate rates are declining, especially if that obligation has several years to maturity. However, the closing and other costs of refinancing have to be weighed against the annual savings generated by the lower rate of interest, and figured as part of the budget.

In the case of bonds, there is a risk to the investor/buyer. They will have cash available because of the payout from the issuer if they do not choose to reinvest, but any new bonds will probably be at a lower rate of interest.

Issuers may offer the investor a convertible feature, meaning there will be a number of shares of stock that the investor will receive on conversion. Once agreed to, this transaction is irreversible and the investor would probably only do the conversion when stock prices have increased. The convertible feature allows the company to pay a lower interest rate because the stock is being reinvested in a product that is worth something, like stock.

For example, a General Electric convertible bond may be converted to 50 shares of GE stock. If that stock is selling above $\$ 10$, it would be an advantage to investors to convert their $\$ 1,000$ GE bond for GE stock.

Companies may offer warrants with bonds, which are options to buy stock at below current market prices. This feature will result in a lower interest rate.

Bond yields are an expression of the real rate of interest that the company pays. This is a complicated formula that is best computed by a professional tax or financial advisor.

### 2.5 Risk and Rate of Return

There is a direct relationship between risk and rate of return. They move together:

The higher the risk, greater will be the rate of return. There is a classic way to represent this, a pyramid which reflects the proportion of assets you should allocate to each level of risk.

At the apex of the pyramid where you have the highest risk, you should allocate the least amount of investment. This would include future contracts and collectibles.

As the pyramid widens, you would increase your investments with medium risk. At the top of this second level, identified as aggressive growth, you would include so-called junk bonds, stocks, and growth mutual funds. At a lower level of medium risk investments you would include real estate (the actual properties) or Real Estate Investment Trusts (REIT's). At the very bottom of the medium level would be blue chip stocks and income producing mutual funds.


The very bottom of the pyramid is low risk investments. At the top of this low risk would be life insurance and government securities, such as treasury bills, U.S and municipal bonds, and mutual funds which primarily invest in government bonds and government agencies. At the very bottom of the pyramid, the lowest of the low risk, would be FDIC-insured savings accounts, Certificates of Deposits, and money market mutual funds.

Following the pyramid concept of investing is a prudent strategy and staying will probably result in an overall decent return on your assets.

# 3 Personal Income Tax: Filing Status, What is Taxable, Deductions, Exemptions, Tax Shelters Preparing for the Coming Year 

Filing the annual Form 1040 can be a complicated and frightening thing for many taxpayers. The consequences of doing it incorrectly - or incompletely - vary from losing out on money rightfully owed the taxpayer to being called for an IRS audit! Looking at some aspects of the process can be very helpful.

It's been said that death and taxes are the only certain things in life. Income tax - on all levels - is the government's chief means of generating revenue. It is also the most complex of all subjects, due to confusing law verbiage and the vastness of the Internal Revenue Service Code which never seems to decrease in volume.

Forty years ago there were calls for simplification of the Code but in fact the opposite has happened. New tax credits, which reduce one's tax liability dollar-for-dollar, increase every year, and don't usually go away, while a large number of new credits
 may be added each year. It's a complex annual obligation, one that most of us are subject to. Will it ever get easier? How does the average person wade through the forms and jargon and regulations? The best place to begin to study income tax law is with the filing status. So let's look at what the government gives us to work with. Refer to Pages 1 and 2 of Form 1040 on the following pages.



### 3.1 Filing Status

Even at this very beginning point, there is much complexity. There are five different filing statuses for which taxpayers are eligible and several are very confusing. The simplest is that of
 a single taxpayer, but that doesn't necessarily mean never having been married or not married now. The status of single or married is always determined as of the last day of the tax year: if you were married on December 31 of any year, you are considered married for the entire year; if you are divorced as of December 31 of any year, you are considered single for that whole year.

Another complication pops up in community property states such as Wisconsin, my home state. In the absence of a marital property agreement prepared ahead of the year of divorce, the divorced couple will have to allocate the community income up to the date of divorce if they lived together any days of that year. These couples, including some who were my income tax students, have trouble with this calculation.

Secondly, a person married as of the last day of the year can claim the status of married filing jointly (MFJ) or they can elect to complete their return as married filing separately (MFS). However, in fully $99 \%$ of cases, it is almost always bad for the couple to file MFS because they lose many deductions and credits that would otherwise be available to them. It takes some real skill as a counselor to convince the couple that they are better of filing MFJ, regardless of their current marital status.


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A fourth filing status is that of qualifying widow/er. For two years after a spouse dies, the taxpayer is eligible to file as a surviving spouse as long as he or she has a dependent child or stepchild living in the home. The qualifying widow/er must have been eligible to file a joint return with the decedent in the year of death and cannot remarry during those two years.

In the third year after a spouse's death, the surviving spouse may qualify for head of household (HOH). This is probably the most confusing filing status of all the preceding. First, the taxpayer must be unmarried as the last day of year. However, persons who are legally married may be considered unmarried if they have not lived together for the last six months of that year and if the home was the principal residence of a dependent child, grandchild, stepchild, or foster child. The taxpayer must be responsible for over $50 \%$ of the cost of that household, which includes food, mortgage payment, property taxes, rent, maintenance and utilities.

In a divorce situation, there might be an agreement which grants the HOH status to one of the parties, or to each party in alternate years. You must follow this agreement, especially if spelled out in the divorce decree. There is also an exception requiring that the dependent child must reside with the taxpayer for more than six months. The tax code allows a parent to be claimed as a dependent even if he or she lives in their own home or in a retirement/nursing home and you provide over $50 \%$ of their upkeep.

### 3.2 What is taxable and what is not?

After you get through complex filing status, the next issue you must deal with is what type of receipt is taxable and which is not. Almost all cash receipts are taxable - income, interest, dividends, net rents, selfemployment income, etc. The exceptions are actually few: gifts and inheritances are not taxable. Interest income derived from municipal obligations is free from federal income taxation. Interest income from federal bonds is exempt from federal but is subject to state income taxes. There are some state bonds that are exempt from state income tax. Examples of this are Miller Baseball Park and Lambeau Field bonds issued to help fund the building of these stadiums.

Receipts of property are sometimes not taxable. Fringe benefits such as hospital insurance and medical reimbursement plans are almost always nontaxable. Retirement plans provided by employers are usually not currently taxable but
 will be later on when withdrawn. Awards for longevity and safety, if received in the form of property, and are relatively small in value, are tax free.

Certain kinds of income are taxed at different rates. Long-term capital gains (LTCG) and qualifying dividends are subject to special tax rates of 0 and $15 \%$, while other income can be taxed as high as $35 \%$. The best principle to follow in determining whether any type of receipt is taxable or not is to check the code and presume it is, if the code doesn't say it isn't. Confusing, isn't it?

### 3.3 Deductions

Deductions are many and diverse. Individuals are allowed a standard deduction or they can itemize. The standard deductions are dependent on one's filing status and are as follows for tax year 2012:

| Filing Status | Standard Deduction |
| :---: | :---: |
| Single | $\$ 5,950$ |
| MFS | $\$ 5,950$ |
| MFJ | $\$ 11,900$ |
| Qualifying Widow/er | $\$ 11,900$ |
| HOH | $\$ 8,700$ |

You should note that the MFS and the Single standard deduction are identical and that each one is exactly $1 / 2$ of the Married Filing Jointly.

In addition, if a taxpayer is blind and/or 65 years or older, they are entitled to one extra standard deduction for each situation: $\$ 1,150$ for married and qualifying widow/er and $\$ 1,450$ for unmarried.


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Dependents can be claimed on another person's tax return, especially in the case of divorced or single parents. They are entitled to a minimum standard deduction of $\$ 950$ or earned income plus $\$ 300$, whichever is larger. The basic standard deduction is limited to $\$ 5,950$ and calculations cannot exceed that figure.

Instead of the standard shown above, if a taxpayer's itemized deductions are larger, they should itemize. The itemized deductions consist of medical expenses (doctors, other health practitioners, medical supplies, transportation, medical insurance, and nursing home costs) in excess of $7.5 \%$ of an individual adjusted gross income; real estate taxes on all non-business real property; state and local income taxes, ad valorem ${ }^{4}$ non-business personal property taxes; foreign taxes; mortgage and investment interest; charitable contributions; casualty and thefts losses of non-business property in excess of $10 \%$ of the adjusted gross income; miscellaneous itemized deductions in excess of $2 \%$ of adjusted gross income (tax preparation and advice, employee business expenses, etc); miscellaneous itemized deductions not subject to $2 \%$ of adjusted gross income (gambling losses to the extent of gambling winnings).

In addition to the standard and itemized deductions, there are deductions for adjusted gross income. They include alimony, traditional IRA contributions; self-employment tax; self-employment health insurance; moving expenses; penalties imposed by financial institutions for premature withdrawal of certificate of deposits; health savings accounts contributions; student loan interest; tuition for higher education; and domestic production activities. They are sometimes called above-the-line deductions which are listed on the front of the Form 1040.

### 3.4 Exemptions

Taxpayers are allowed a personal exemption of $\$ 3,800$ for 2012 if they are not claimed as a dependent on another person's income tax return. In addition, they are allowed one exemption for their spouse if they file a joint return (even if they file MFS and that spouse has zero income) and for each qualifying dependent. There are two types of these dependents: the qualifying child or qualifying relative. A qualifying child must be (1) the taxpayer's child, step-child, eligible foster child, sibling, stepbrother or stepsister, or descendant of any of them (niece or nephew); (2) younger than age 19 or a full-time student under age 24, or any age if permanently disabled; (3) had not provided more than $50 \%$ of their own support; (4) did not file a joint return except to claim a refund; and (5) not claimed as a dependent on another person's tax return.

To be a qualifying relative, (1) the person must not be a qualifying child of another Person; (2) be a member of the taxpayer's household for the entire year or be related to taxpayer (parent, grandparent, child, grandchild, niece, nephew, uncle, aunt but not cousins); (3) have gross income less than $\$ 3,800$ (the dollar amount of the dependent exemption); and (4) taxpayer must provide more than $50 \%$ of their support.

If a person operates an unincorporated business or rents real estate, they are allowed deductions from that gross income on schedules $\mathrm{C}, \mathrm{E}$, or F where will report the net income or loss from those activities.

In some cases, there is an alternative minimum tax (AMT) imposed on certain taxpayers. If this tax exceeds the regular tax liability, the difference is added to that tax on a person's 1040. A tax professional is the best resource to find out if AMT applies.

A tax professional is the best resource to find out if AMT applies to any return because the computations are confusing!

There are various credits subtracted from the regular and AMT liability. These include business credits for such actions as increasing your research expenditures, hiring persons who have high unemployment
 rates as a group, investing in low income housing, etc. These credits are nonrefundable but many have a provision of a one year carryback and a twenty year carryfoward. That means if a tax liability is found to be zero, the taxpayer can "carry forward" the credit to a year in which they do have to pay. The credits can also "carry back" to prior years, which would mean filing an amended return. The credits can also "carry back" to prior years, which would mean an amended return. Amended returns must be filed by the regular due date (usually April 15) and an amount equal to $100-110 \%$, of last year's taxes, depending on income level, must be paid by the due date along with a Form 1040X.

They are also many personal credits most of which are nonrefundable and do not have carryback and carryfoward provisions. These include child, education, energy, and dependent care credits. These are nonrefundable. There is a credit for low income persons who have earned income and usually a qualifying child. This is a refundable credit.

Finally the taxpayer subtracts his or her withholding amounts and estimated tax payments from the remaining liability to arrive at the refund or tax due.

As a person's tax situation becomes more complex and they are not as comfortable preparing their own tax return, they should seek out a professional tax preparer. The preparer should also be an advisor on tax matters, suggesting ways to legally minimize one's taxes but also assisting on issues with the Internal Revenue Service. They can be involved in audit situations and in resolving payment problems.

### 3.5 Tax Shelters

Taxpayers should be aware that one of the best tax shelters available is their primary residence. Not only are the real estate taxes and the mortgage interest currently deductible if you itemize, but when the residence is sold, all or most of gain will not be taxed if the individual used the residence as his or her primary residence for two out of the last five years. This transaction can be repeated every two years. In addition there is a way to make good money and avoid income taxes on the rent you receive: consider renting your primary residence. You would be able to deduct $100 \%$ of the real estate taxes and mortgage interest if you meet the following test: the home is rented for the greater of 14 days or $10 \%$ of days rented. For example, say you rent your home for one week to a niece while you attend a seminar. Ten percent of that would be 7 days, less than 14, so you're not eligible But if you rented it out for a year while you studied abroad, you would be. Examples of this strategy could include renting your home for large national sporting events, such as major golf tournaments or national-level swimming, diving, or track meets. You could probably charge at least $\$ 2,000$ a week to the players, maybe $\$ 1,000$ to $\$ 1,500$ to the fans.


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In addition, if you have a vacation home or a condo in some resort or seasonal area of the country, there is a way to move that location out of your estate if you have lived there for two years. You would pay a small gift tax if its value really exceeds the annual exclusion and $\$ 5,000,000$ million equivalent credit. It is called a qualified personal residence trust. The calculation is a little strange but not impossible to do following a worksheet. It is based on actuarial life expectancy when the personal residence trust is created and the age of person at the end of trust. The lower the current applicable interest rate is, the lower the value of the gift. If you outlive the trust, you will have to pay rent to whomever the house was transferred to, which could be your child or grandchild. The house would not be in your estate in either case, and you have effectively used the tax law to reduce the estate taxes.

### 3.6 Preparing for the Coming Year

IRS will mail each taxpayer a booklet of forms for the coming year late in the current year. However it will contain only those forms used in the prior year's return. If your situation has changed and you find you need different forms, and if you file your own return non-electronically - by snail mail - you can access any forms you might need at IRS.gov. Also most libraries have both federal and state forms available to the public.

But if you find that your situation has changed enough to warrant a new filing status, more deductions, or different exemptions, or if you have moved, opened a business, taken on rental property, or any of the other situations outlined above, the best advice would be for you to consult a tax professional. If you still choose to complete your return on your own, at least have that professional check your work. Rather safe than sorry!

# 4 Estate and Gift Taxes: Generation-Skipping Transfers, ILITs, Not Outliving One's Estate 


#### Abstract

Whether one's estate is large or small, there are ways to lessen the impact of estate taxes by gifting some of what we own to others. Also, insuring that our estate will last as long as we do is important to so many of us.


### 4.1 Gift and Estate Taxes and Returns

Gift and estate taxes are levied on the transfer of property to others. A gift is a transfer of property to someone for less than its fair market value (FMV) during one's lifetime, whether or not any money changes hands. The donor is required to file a gift tax Form 709 if the gift is more than $\$ 13,000$ during any year. An estate tax return Form 706
 may have to be filed if there is a transfer for less than the FMV at the date of death and the amount of assets owned and transferred by the decedent are valued at more than $\$ 5.12$ million.

Estate taxes are imposed on the transfer of property owned at the date of death, involving all property that the decedent owned, possessed, or had the enjoyment of at that time. It can include personal property (clothing, autos, guns, jewelry, etc.), real estate, securities, business property, partnership interest, insurance on both his or her own life and someone else's (subject to certain valuation issues), receivables, and unpaid wages or accrued interest on bonds. Special situations include grantor living trusts, irrevocable trusts, jointly-held property of married persons, community property states, powers of appointment, children of the current rather than a previous marriage, annuities, and the like. In all these cases a tax professional would be the best source of information, especially about filing Forms 706 and 709.

The estate tax return is due normally within nine months of the date of death and is similar to income tax returns in that extensions are granted, but there is no extension for payments due. The personal representative should be careful to include the following kinds of attachments: copy of the will, transfers made by other than the will, elections, and qualified disclaimers.

### 4.2 Generation-Skipping Transfer

A generation-skipping transfer can occur during one's lifetime or at death if a generation is skipped, such as a grandparent to a grandchild rather than to a son or daughter. Again, if the amount exceeds $\$ 5.12$ million, that will require a Gift Tax Return. However, some of these lifetime transfers are exempt from gift taxes. For example, payment of another's medical expenses is exempt, as are payments made directly to educational institutions on behalf of another, and political contributions. Gifts to spouses are exempt as well as gifts to ex-spouses pursuant to a divorce decree if made within three years of the agreement. Another example is creation of a joint checking or savings account which would initially be exempt. It is considered an incomplete transfer until the donee actually withdraws funds from these accounts. The "gift" would be made at that moment.

A transfer need not be directly to the donee. It may be a payment to a third party on behalf of the donee, such as mortgage obligations, insurance premiums and other liabilities. If the donee disclaims these within nine months after the transfer, there is no gift.

Payments of present interest per year and per donee up to $\$ 13,000$ are considered gifts and are excludable: one need not file a tax return unless there is an issue about the valuation of the gift. You want the three years statute of limitations to begin as soon as possible. After that time expires, unless there is fraud involved, neither the taxpayer nor the government can bring up the issue again.

The term present interest means that the donee has the right to use, possess, and enjoy the property or income at the time of transfer. Future interest could be on the remainder of the property, for example, gifting a person's interest in their residence while he or she retains both ownership and the right to residence until some future date. That date could be specific, such as 10 or 15 years, or nonspecific, such as life. This gifting would not qualify for the annual exclusion of $\$ 13,000$ currently per year and per donee. An example of future interest would be a trust in which the trustee must distribute the income but has the discretion of determining which beneficiary will be the recipient. This is called a "spray" or "sprinkle" power. Gifts to corporations also are future interest gifts, because they are considered gifts to the stockholders who cannot benefit from the gift until the corporation is liquidated or dissolved. However a contribution to a 529 plan for children or grandchildren does constitute a present interest, as do payments made directly to a provider for another's medical services.

Gifts are valued at the FMV of the property at the time of the gift. That FMV can be determined on items such as closely-held stock, paintings and antiques which will require valuation by expert appraisers. The donor is required to attach a professional copy of the valuation and include justification for any discounts taken for marketability of the property or lack of control, a discussed below.

The marketability discount is allowed because of the difficulty in disposing of certain kinds of property without significant costs, such as advertising, listings, displaying, etc. When it comes to stock, if one has less than $51 \%$ of control - directly or indirectly - there is a minority discount for not being able to change policies of the corporation. In effect, at less than $51 \%$ of the voting stock, you really do not control anything. Therefore the stock is not as valuable to you or the corporation as it would be to someone actually in control with over $50 \%$.

Typically the total of the two discounts for marketability and minority are about $35 \%-40 \%$ of the valuation. In the case of a controlling interest a premium might be added to the value.

### 4.3 Irrevocable Life Insurance Trust (ILIT)

Irrevocable Life Insurance Trusts (ILIT) are created by individuals to provide liquidity to their estate without including their life insurance in that estate. However, I recommend that clients who have an ILIT file a gift tax return even if the premiums are less than $\$ 13,000$. This is done to establish that, even in the absence of written evidence, there is proof that the ILIT was established. ILITs involve what is called a "crummy power," allowing the beneficiaries to annually withdraw an amount of money from the trust, after being notified every year of this right before the life insurance premium is paid from the trust.

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### 4.4 Not Outliving One's Estate

In my experience as a tax preparer and advisor, I have dealt with many persons who have estates of substantial size. Even these individuals can worry about not having enough money for the remainder of their lives. In particular I remember some very wealthy, unmarried, retired teachers who were reluctant to gift over part of their estate to relatives because they were afraid they wouldn't have enough money left to see them through their older years. Consequently the estates of many of these individuals were subject to large federal and state taxes, even though the bulk had been bequeathed to charity.

I've found four reasons for people fearing they will outlive their money. First, they may choose a "term certain," such as 15 or 20 years, for their retirement accounts, like IRAs and 401K plans: at the end of that term they will stop receiving any money. Secondly, people are living longer thanks to improvements in health care and life styles. The third is the concern that years of investments could be easily wiped out in a volatile stock market. And finally, many people would not want to live with, or become dependent on, their families.

To address some of these concerns, I personally recommend a few things to my clients. First, choosing a lifetime option over "term certain" means that, while the payout is less each period, it isn't a great deal lower. As far as the stock market, diversification of holdings lessens the impact of the ups and downs of the market. Consider also that nearly everyone will have social security coming in, and if necessary, there are state, community, and religious organizations designed to help as well.

And what about income annuities, such as winning the lottery, being awarded funds arising from lawsuits, or an election to take your retirement in a lump sum? In each of these cases your money is in the hands of a plan administrator, which means you have to wait a few weeks for the "paper work to be done," after which you would receive a fixed amount each month. You could pay for a cost of living adjustment from the administrator which would increase that amount. Sounds good? Of course it does. Who wouldn't want a regular source of income? Well there are a few problems, including the low interest rate on annuities, which translates to low payouts. If your life expectancy is statistically short, you might not be a candidate for this type of annuity.

Sometimes - although rarely - a family member will take on the role of plan administrator, which makes the annuity "private." If this happens there is the danger of the annuitant living longer than expected and possibly becoming a burden. I know of financial advisors recommending this kind of arrangement, but I have seldom seen it used.

There are companies that advertise they will "buy your annuities for a lump sum payment." I've looked into these on the internet, but in each case you have to give the various companies all your information before they'll tell you what amount-on-the-dollar they're willing to pay you for your annuity. My advice would be to tread carefully in this area.

There is no one absolutely sure, failure-proof strategy! But there are tactics that one can employ to ease the valuations and filings of estate and gift taxes, and help insure our estate will last as long as we do.

## 5 Social Security:The System, Medicare, When to Apply

> Social Security is something nearly everyone pays for over the course of their working life. It is intended to help with retirement, medical issues, and disability.

### 5.1 The Social Security System

The Social Security System (SS) came into existence in 1935 as a part of Franklin Roosevelt's New Deal. It is technically known as the Federal Insurance Contributions Act, more commonly called FICA. It is meant to cover death, retirement, and disability, and since 1960 has included Medicare medical insurance and benefits. Nearly everyone - even if self-employed - pays into the system through paycheck deduction or tax levy, regardless of age. Employers and employees each pay an equal amount, currently $7.65 \%$ of gross income up to a maximum income of $\$ 110,100$ which will be explained below. Individuals who are self-employed (S/E) pay the total $15.35 \%$ of their S/E income, based on a slightly smaller percentage of their gross.


The earliest age which one can begin collecting SS benefits is 60 if a widow. The regular age at which you can receive full benefits is currently 66-67. Otherwise an individual can start receiving payments at age 62 , but the amount is subject to a penalty for applying early. Anyone at any age can receive Social Security disability benefits, but eligibility can only be determined and authorized by an SS-appointed doctor.

There are some notable exceptions to mandatory SS contributions, such as ministers of established religions who can opt out of paying. I personally advise such individuals not to do so, even though FICA is often the biggest tax on their income, if only because they are subject to this tax on their housing allowance. Other examples include students who work part-time for their schools. Also children under the age of 18 working for their parents in a sole proprietorship or partnership (where the parents are the only partners) also are not subject to SS taxes. Foreign students and foreign educational professionals are also exempt.

Some people defer receiving SS at age 65 and continue to work. You can earn up to $\$ 38,880$ without a reduction in benefits of $\$ 1$ for each $\$ 3$ over that base. For example, if you were born in May 1939 and your salary or wage for 2012 was $\$ 39,960$, you would lose $\$ 360$ of your January 2013 benefit only. This is calculated as follows:

| 2012 Salary | $\$ 39,960$ |
| :--- | :---: |
| Less 2012 Maximum | $\mathbf{3 8 , 8 8 0}$ |
| Excess | $\$ 1,080 / 3=\$ 360$. |

### 5.2 Medicare

Medicare consists of four parts:
A) Part A is mandatory and helps cover inpatient care in hospitals, as well as skilled nursing facilities, hospice, and home health care.
B) Medicare Part B helps cover doctor and other health care providers' services, outpatient care, durable medical equipment, home health care, and some preventive measures.
C) Part C is also voluntary and includes Medicare Advantage, as explained below. If you have a supplemental medical insurance through your employer, you would not enroll in this part. Medicare would be your primary insurance, any other coverage would be secondary.
D) Part D is for prescription medications. Each Medicare Prescription Drug Plan has its own list of covered drugs, called a formulary. Many Medicare drug plans place drugs into different "tiers" on their formularies. Drugs in each tier have a different cost. A drug in a lower tier will generally cost you less than a drug in a higher tier. In some cases, if your drug is on a higher tier and your prescriber thinks you need that drug instead of a similar drug on a lower tier, you or your prescriber can ask your plan for an exception to get a lower copayment.

But despite this broad range, Medicare doesn't cover everything. If you need certain services that aren't covered, you'll have to pay for them yourself unless you have secondary insurance or you're in a Medicare Advantage plan that covers these services. And even if Medicare does cover a service or item, you generally have to pay your deductible, coinsurance, and copayments. Some of the items and services that Medicare doesn't cover include long-term care (also called custodial care), routine dental or eye care, dentures, cosmetic surgery, acupuncture, hearing aids and exams for fitting them, and routine foot care. Individuals who are covered by Medicare will usually receive a government-published book in the fall of the year outlining what their benefits include. The best source of current information can be found at www.medicare.gov.

Medicare Advantage plans are offered by private companies contracting with Medicare to provide Part A and Part B benefits to people with Medicare who enroll in the plan. In all types of Medicare Advantage Plans, you're always covered for emergency and urgently needed care. These plans must cover all of the services that original Medicare except hospice care. The plan can choose not to cover the costs of services that aren't medically necessary under Medicare. If you're not sure whether a service is covered or not, check with your provider before you get the service.

Medicare Advantage Plans may offer extra coverage, like vision, hearing, dental, and/or health and wellness programs. Most include Medicare prescription drug coverage (Part D). In addition to your Part B premium, you usually pay a monthly premium for the Medicare Advantage Plan of at least $\$ 99.90$ each month, based on income. There are rare individuals who defer taking Medicare at age 65 because their employer allows them to treat a company policy as their primary insurance and so they save that part B cost.

Insured individuals pay annually for both Parts A and B out of their social security benefits, typically beginning at age 65 . However this can be delayed if you already have supplemental health insurance. And if your supplemental insurance includes a prescription drug provision you should opt out of Part D.

The current contribution is taxed at a rate of $4.2 \%$ on earnings up to $\$ 110,100$ for 2012. That rate will probably go back to $6.2 \%$ if Congress does not extend the payroll tax cut for 2011 and 2012. This insurance is also known as Old Age, Survivor, and Disability Insurance (OASDI) representing 1.45\% of the FICA tax.

Here is the monthly cost per filing status:

| Filing Joint Return | Filing Individually | Married Filing Singly | Monthly Premium |
| :---: | :---: | :---: | :---: |
| Less than $\$ 170,000$ | Less than $\$ 85,000$ | Less than $\$ 85,000$ | $\$ \mathrm{~N} / \mathrm{A}$ |
| $\$ 170,001-\$ 214,000$ | $\$ 85,001-\$ 107,000$ | $\mathrm{~N} / \mathrm{A}$ | $\$ 139.90$ |
| $\$ 214,001-\$ 320,000$ | $\$ 107,001-\$ 160,000$ | $\$ 85,001-129,000$ | $\$ 199.80$ |
| $\$ 320,000-\$ 428,000$ | $\$ 160,001-\$ 214,000$ | In excess of $\$ 129,000$ | $\$ 259.70$ |
| In excess of $\$ 428,000$ | In excess of $\$ 214,000$ |  |  |

### 5.3 When to Apply

A person should contact the local Social Security office or go online at www.socialseurity.gov online about four months before they want to begin receiving social security benefits. Delay beyond retirement age is a mistake because benefits are paid retroactively for only six months. This will probably give you time to eliminate any problems with your records and to deal with any issues such as the amount of employment earnings, especially if you was self-employed. Your benefits can be estimated either in person or online.


You should have a copy of your birth certificate, most recentW-2's, military discharge papers, and bank or credit account numbers where the benefits will go by direct deposit. As indicated earlier if you continue to work and are less than full retirement age, your cash benefits will be reduced. If you are taking your social security before age 65 , you will lose $\$ 1$ for each $\$ 2$ over $\$ 14,640$ of income, really not a very large dollar amount.

If you are divorced and were married at least 10 years, you can receive the benefits of your ex-spouse if their benefits are higher. In addition, if you are a widow, you can also claim your deceased's benefits at age 60 . If age 50 and still not married but are caring for a child under age 16 , or a child who is disabled at any age and disability occurred before that child reached age 22 , you can also apply. The children of the deceased who are full-time student under age 18 who are still full-time students in high school are also eligible.

There is frequent discussion as to what is the optimal age to claim Social Security. Delaying receiving benefits will avoid any reductions if you are under the full-age retirement and continue to work with earnings in excess of the allowed amount. In addition, because of a delay, benefits may ultimately be higher. As always we are dealing with uncertainties. The choice could be called a turkey shoot: If you are certain that you will not live very long, you should take benefits as early as possible. If your family has the longevity gene, then you should take it early. Also if you have other means of support, delaying could be advantageous in the long run.

Besides retirement, disability, and survivor's benefits, a token amount is paid for burial. This is a lump-sum of $\$ 225$, payable only to a surviving spouse, and would not cover even the least expensive internment.

## 6 Retirement Plans: Employer plans, Pension plans, Annuities and IRAs

> Whether offered by an employer or invested in on one's own, there are a variety of retirement and pension plans that can and should - supplement savings and investments.

Planning for one's financial future can and should include retirement plans where provided by an employer, over and above pension plans. There are also a number of individual options for retirement accounts that should be explored. I will first look at investment opportunities offered on-the-job.

### 6.1 Employer-Provided Plans

There are two types of employer-provided retirement plans, qualified and nonqualified. Qualified plans must meet tax code requirements, including being permanent, are set down in writing, are non-discriminatory in terms of coverage, and are available not just to highly compensated employees but to at least $70 \%$ of all others. These plans allow an employer to make
 tax deductible contributions - and sometimes nontaxable - on behalf of the employee, which is to the employer's benefit since it is usually deductible for the company. In addition, the investments grow taxfree but will be subject to tax when they are withdrawn by the employee.

Nonqualified plans do not allow a deduction for income tax purposes for an individual's personal contributions. However, even though the contributions are nondeductible, the accounts also grow tax-free.

### 6.2 Pension Plans

Companies can also offer pension plans to their employees. These are known as either defined benefit or defined contribution plans. The distinction is really based on how much risk the employer takes in determining the payout made when a worker retires. In either case workers may be able to add their own money to what the company puts in on their behalf. These are nontaxable accounts and include those set up for workers in business, called 401 Ks , and for employees of not-for-profit schools and hospitals, called 403Bs. In all these cases, funds can grow faster than when tax is periodically applied to the balances.

On one's own, you may also contribute to an annuity or your own Individual Retirement Accounts (IRAs), which also grow tax-free, whether or not you are also covered by a plan at work.

### 6.3 Annuities



An annuity is a contract between an individual and an insurance company in which the individual deposits money either as a lump sum or various amounts over time to be withdraw latter, usually in equal installments at retirement age. As shown above in company-provided retirement plans, annuities can be qualified plans, which mean that a deduction is allowed on the person's income tax return when the contribution is made. These accounts grow tax-free until withdrawn at retirement age.

There are two basic types of annuities, fixed and variable. For a fixed annuity, the insurance company provides a guaranteed rate for a period of time. However, the annuitant is exposed to the same risk as with any long-term investment: the insurance company can offer whatever the current rate proves to be, and that can be either lower or higher. You can purchase a provision for a floor on the rate, which means the company cannot pay below a rate you have set. You could also purchase a fixed death benefit which in effect makes it partly life insurance.

Variable annuities are more like mutual funds. The insurance company takes your money and invest it in separate accounts. These accounts can be stock, bonds, real estate, or fixed yield portfolio. Because these accounts are so much like mutual funds, they can perform well or poorly over time. At some point, an individual will begin to take payouts from the insurance company. These could be in the form of lump sum withdrawal or equal withdrawals for a person's lifetime or for a fixed period of time with a guarantee of a minimum amount of time. For example, I chose to take my Wisconsin State Teachers Retirement over my life alone but for a guaranteed 15 years. If I died before that time was up, my named beneficiaries would have received the remaining installments until the $15^{\text {th }}$ year. I am now starting the $21^{\text {st }}$ year of withdrawal so I won the gamble.

You can purchase what is identified as an immediate annuity, paying a lump-sum to the insurance company. You would then begin receiving periodic payments usually within 60 days. For example, take the case of a large injury settlement where you might be disabled and unable to make a living doing your former job, you could elect to deposit this large settlement with the insurance company. Another example might be the death of your spouse, where you could choose to convert their life insurance proceeds to an annuity.

Other annuities are deferred annuities where you either contribute periodically to the contract or pay a lump sum with the withdrawal starting at a much later date. Most types of retirement plans are of this order. You contribute to the plan now during what is called the accumulation period with withdrawal at retirement age. These plans may be qualified (tax deductible now, accumulating tax free), or nonqualified with no tax deduction but almost always tax-free accumulation. At the point of withdrawal, the contract is annuitized and what are accumulation units are converted to annuity units. The number of units is fixed at this point.

There is an Assumed Interest Rate (AIR) made by the insurance company to predict the future value based on mortality tables. If the actual realized rate of return is higher than the AIR, the value of each annuity increases with the payout increases. The reverse is also true: if the realized rate of return is less than the AIR, the value of each annuity decreases and the payout goes down.

The tax consequence of these payments depends on several factors. If they are qualified plans, each amount received will be $100 \%$ taxable. If they are nonqualified plans, or nondeductible IRA's, each amount received will include
 a partial return of your basis which is nontaxable while the other portion will be taxable income. When the total basis (your initial contribution) has been recovered, each payment will $100 \%$ taxable. If because of death the annuitant will not recover all of his or her basis, a tax preparer will claim a miscellaneous itemized deduction, not subject to $2 \%$ threshold, equal to that unrecovered cost. The income tax consequences and the estate or gift tax consequences are different. To the extent that a gift transfer exceeds the annual $\$ 13,000$ exclusion, a gift will be taxable with some of the lifetime credit being used up. Similarly, if the gross estate exceeds the remaining lifetime credit, the survivorship amount will be included in the estate tax. Annuities are not subject to probate administration because they have a designated beneficiary.


### 6.4 Individual Retirement Accounts (IRAs)

In recent years most financial advisors have suggested monies be put into a Roth IRA rather than into a traditional, nondeductible IRA. To be sure there are income limits for Roth IRAs but there is a way around these limits. You could contribute to a nondeductible IRA and immediately do a rollover to a Roth IRA. For the last several years, there are no more income limits on rollover Roth IRA's. ${ }^{5}$ And at withdrawal there are other options available for investors. They can annuitize the plan, which means the retiree will withdraw funds, usually in equal amounts, for a certain period of time. That can be their lifetime alone or a joint lifetime.

If married, one must obtain a spouse's consent to exclude him or her from a survivorship option, whether or not one lives in a community property state. This consent must be written, witnessed by either a plan representative or a notary acknowledging the effect of the participant's benefit election, and must be given within a 90 day period of the starting date. And of course the couple must weigh in on the economic consequences of a choice which may provide a larger monthly benefit for the retiree but nothing for the spouse. I chose this option with my Wisconsin State Retirement benefits, but I offset my wife's loss through the purchase of a $\$ 100,000$ life insurance policy on my life naming her as sole beneficiary.

In addition, you can choose a lump sum option of the entire amount in the account. If you do choose this option, you will pay all income tax due in the year of receipt. If the account has no tax basis - the amount you originally contributed - you will pay on $100 \%$ of the amount you withdraw. If the money came from a nondeductible IRA, you would be taxed on the balance over your basis. For example, if you set up an IRA with an initial contribution of $\$ 5,000$, that would be your basis, and only the remainder would be taxable. If it is a Roth IRA, it is a qualified distribution and the recipient will pay no income tax. To be a qualified distribution from a Roth IRA, five years must have lapsed from the initial contribution and the individual must be over the age of $591 / 2$. However there are exceptions to the age requirement:
a) if the distribution is made to the owner's beneficiary or estate after the owner's death,
b) if it is attributable to the individual becoming disabled, or
c) if it is made to pay first-time home purchase expenses.

The amount for the first-time home buyer is limited to $\$ 10,000$ which can be used for the individual's home, or for a spouse's, child's, or grandchild's first-time home purchases.

There is a favorable income tax benefit to a lump-sum distribution from a qualified plan. If the participant was born prior to 1936, they can use a ten year averaging calculation. Prior to the year 2000, it was either a 10 - or 5 -year averaging. The effect of the five year average was to take the lump sum as if it came over a five year period using the 1986 single taxpayer rates, which is only an arbitrary condition arrived at by the government. The tax is paid in one year, but the average reduces the tax on the distribution. I have used it on several occasions but because 1986 tax rates are higher in many cases than current rates, I have not used it for at least a decade. Also your current filing status might produce more favorable results than the 1986 single rates. I have also worked more often with the 10 -year averaging, which functions the same way as the 5 -year. There was also some allowed capital gains treatment on some of the distributions where the capital gain portion was taxed at $20 \%$. For 2012, long-term capital gain rates are $0 \%$ and $15 \%$, but will probably revert to higher rates for 2013. In addition, if the amount of the lump sum is less than $\$ 70,000$ the taxable amount is reduced.

Regardless of when one was born there is an available election not to be taxed on that part of a lump sum distribution consisting in whole or in part of employer corporation securities. The amount not taxed is the net unrealized appreciation (NUA) of these securities which is defined as the excess of the total fair market value of the securities in the distribution over the total cost or other basis of such securities in the plan. I can recall using the election only about a dozen times. I believe most of the clients did not understand what I was explaining to them. The complications can scare some people away from choosing this option. However, that choice could be favorable to certain taxpayers for whom the value of the securities may be expected to rise.


There are penalties for early distributions, usually before age $591 / 2$. The point to these income tax penalties is to discourage using retirement accounts for other than their intended use prior to retirement age. The penalty for federal income purposes is $10 \%$ of the early distribution. In addition, there is a penalty imposed by the state. In Wisconsin, my home state, the penalty is $1 / 3$ of the federal amount. There are several exceptions to the penalty including the following for employer-funded plans (1-5) and IRAs (6):

1. Made after the employee's death.
2. Attributable to the employee becoming disabled.
3. The payments are made up of a series of equal payments for the life of the employee, or the joint life of the employee and a designated beneficiary. For qualified plans, the employee must be separated from service with that employer.
4. Used to pay medical expenses which do not exceed $7.5 \%$ of the person's Adjusted Gross Income (AGI).
5. Qualified plans distributions which are paid either to:
a) an employee who separates from service with that employer at age 55 or
b) a spouse in a divorce proceeding, known as a qualified domestic relations order (QDRO).
6. IRA distributions for any of the following reasons:
a) used to pay deductible medical expenses for a person who has received unemployment compensation for at least 12 weeks in the year of the withdrawal
b) used for first-time homeowner purchases
c) used to fund higher education expenses for the taxpayer, spouse, their children or their grandchildren.

There is a penalty for not withdrawing a sufficient amount each year after the person reaches age $701 / 2$, called the minimum distribution. This penalty is much more severe, totaling $50 \%$ of the required distribution. The point is just the opposite of the early withdrawal consequence: it is meant to penalize people for not using their retirement accounts at retirement time and at a certain age. This requirement does not apply to Roth IRAs, which makes those kinds of plans more appealing. I have been able to eliminate that penalty for cases where the client's failure to do so was because of extreme mitigating circumstances that prevented action in a timely manner, such as a spouse's death or illness. However, I am willing to bet that simple ignorance of the regulations would not be a justifiable reason.


The actual distributions may be more than the minimum but not the reverse. The minimum distribution begins the date a person turns age $701 / 2$, but the individual can choose to defer taking their first payment until April 1 of the following year; then he or she will be required to take two distributions during that
 same year. The amount is based on joint life expectancy and certain genderless calculations. The following year, the first distribution must be taken by December 31 of that year and is computed on the account value as of December 31 of the previous year. A person may take the same percentage each year or elect to recalculate each year. If the account holder dies, the spouse can elect to do a tax free rollover to his or her account. If the surviving spouse is not $701 / 2$, the distribution would be deferred and become part of their own IRA account. If the beneficiary is not the decedent's spouse, that person can now treat the account as an inherited IRA. The survivor uses the joint life expectancy of the decedent and the survivor. The beneficiary must be a real person to do this. If the beneficiary is a trust or charity and not a person, the distribution must be made before five years have elapsed, assuming the decedent was at the required minimum distribution age at the time of death. People should probably be advised not to name a trust as their beneficiary. The surviving person could use their age's life expectancy and not the decedent's life expectancy which may be shorter.

Regardless of whether an individual contributes to, or benefits from, an employer's plan or from his or her personal investment in IRAs, retirement plans are definitely an investment and can be very complicated for the average person. You should rely on a financial advisor or tax professional to avoid making costly mistakes that could impact your security at retirement.

## 7 Time Value of Money

> Knowing what amount of money you start out with and how much that money will be worth at a certain time in the future is a great tool for budgeting, saving, and retirement.

The concept of the time value of money is that any currency is worth less today than it will be ten years from now. For a person to have $\$ 1.00$ in ten years, he or she would invest an amount less than $\$ 1.00$ because that amount - at the prevailing interest rate - would earn interest and thus grow because of compound interest. For example, $\$ 0.90$ invested one time in an account for two years at $6 \%$ annual interest, compounded annually, would be worth $\$ 0.95$ one year later ( $\$ .95 \times .06$ ). The 5 cents interest (rounded up) is added to the original mount. Then that $\$ 0.95$ would earn 6 cents over the next year $(.95 \times 06)$ and this amount would be added to the $\$ 0.95$ for a total of $\$ 1.01$. If the compounding was more frequent and/or the rate was higher, the amount, known as the future value, would be higher. Einstein noted that compound interest is one of the wonders of the world!


Sometimes, depending on the circumstances, we are interested in what the future amount will be. To calculate this requires a rather cumbersome formula which is not worth trying to grapple with unless you are a mathematician. Gratefully we are provided with tables, available online at such sites at http://www.immediateannuities.com/ which give us either the factor for a single sum or a series of "flows" - a series of payments - which are called annuities. We multiply our present dollar amount by this factor to arrive at the future sum. For example, if we had $\$ 1,000$ today and we had one ten-year period to wait, with a guaranteed $5 \%$ interest rate, the factor from this table would be 1.629. That means that $\$ 1.00$ at $5 \%$ for 10 years will equal $\$ 1.63$ (rounded): $\$ 1,000 \times 1.629=\$ 1,629$.

If instead we were going to invest $\$ 1,000$ each year for 10 years at $5 \%$, we would consult an annuity table because an annuity is really a series of "flows." The factor from the annuity table for $\$ 1.00$ is 12.578 , which means that for a series of $\$ 1.00$ invested every year for 10 years, at the end of that time would be $\$ 12.58$ (rounded). So if we put away $\$ 1,000$ each year, our future sum would be $\$ 12,578$. If we increase the compounding period and/or the interest rate, that future sum would be larger.

Sometimes we know what the future sum we need will be and we want to determine what the necessary amount is today, the present value of our money. Again there are tables provided, and some calculators can do the functions as well. For example, consider if your daughter is planning a large wedding in three years when she graduates from college. She anticipates her total budget for the wedding would have to be $\$ 50,000$, her future amount. We determine that her financial institution will guarantee $5 \%$. In the present value table we find that, for a single sum at $5 \%$ for three years, the figure is .0864 , which means that $\$ .086$ today will be worth $\$ 1.00$ in three years if the rate of interest is $5 \%$. Since she needs $\$ 50,000$, we multiply that amount by the factor $(.0864 \times \$ 5,000=\$ 43,200)$. A deposit of $\$ 43,200$ in the financial institution will reach $\$ 50,000$ in three years at $5 \%$ compounded annually. Again, the longer the period of time and/or the higher the interest rate, the small the amount will need to be deposited.

If instead of a wedding, I wanted to pay $\$ 50,000$ annually for five years toward my grandchild's college tuition, books, and room and board starting a year from today, I would look up the factor for the present value of an annuity. If the rate of interest is $5 \%$ guaranteed, the present value factor for these variables is 3.54596 for a five-year period. That means if I deposit $\$ 3.55$ (rounded) in this financial institution, I will be able to withdraw $\$ 1.00$ in one year. Since I need $\$ 50,000$, the calculation is $3.54596 \times \$ 50,000=$ $\$ 177,298$. By depositing that amount today, I will be able to withdraw $\$ 50,000$ at the end of each of five years to pay higher education expenses.

In most circumstances the payment will be made at the beginning of a year and would involve a different table, called an annuity due table. However, one could use the same table as before, called an ordinary table, but you would add " 1 " to the time period (i.e., $4+1=5$ ) and then subtract " 1 " from the factor in the table. This is necessary because the table presumes the rent payment is added at the end of a compound period. By adding " 1 " to the number of payments and subtracting that same number from the table amount, you are correcting for this. Using the annuity due table avoids this extra calculation. There are books and internet sources, like http://www.immediateannuities.com/ mentioned above that put those figures right at our fingertips.

There are times when you know your present value (the amount of money you have now) and future value amounts (what you need at some time in the future), but you don't know what rate of interest it will take to have that present value result in that future amount in a given period of time. Or perhaps you know the interest rate you can earn, how much you have now, and what the future value is, but you don't know how long it will take to achieve your end. In either case you divide the present value by the future value. Then you look for that quotient (the factor) in a present value table in the interest column, and you will find the time period. If that time period is known, you will look for that factor along the time period rows, and when is located you will find the applicable interest rate.

If the flows are a series of payments or receipts, then you use the annuity table. For example, if you know the future amount you need and the amount of payments, also called rents, as well as the interest that is guaranteed, you look up in the future value of an ordinary annuity for the rate of interest for the known period. This factor would then be divided into the future sum to determine the number of payments. For example, assume we need $\$ 100,000$ after 10 years, for which the financial institution will guarantee a $6 \%$ rate. The factor from the table is 13.183 for 10 payments at the end of the period of $6 \%$. Therefore, $\$ 100,000 / 13.183-\$ 7,585.53$, showing we would need to deposit $\$ 7,585.53$ each year.

If you have a present value amount such as a debit that is paid off in equal installment, such as a home mortgage, you can look at the debt now - the present value - over the number of years it is being amortized and the current mortgage interest. Then divide that factor into the debt to arrive at the annual equal payments. For example, assume a mortgage of $\$ 100,000$ to be paid off in 30 years at $4 \%$ annual rate. Looking in a present value table for an ordinary annuity, with the payment made at the end of a year rather than at the beginning, we come up with a factor of 17.292 . That would mean $\$ 5,738.02$ total payments over the year. Or one could set an amortization table calculating the interest at $4 \%$ annually, where the interest would be at $4 \%$ on the unpaid balance. This amount would be subtracted from the payment with the remainder going toward the principal. After 30 such payments the debt would be zero. If you know the amount you can afford for a certain debt (present value) and the rate that the institution is charged, you would divide the debt by equal amounts to determine how long it will take to pay off the debt. The quotient would be the factor you look up in the table for that interest rate. For example, assume a debt of $\$ 97,120$ and an annual interest rate of $5 \%$ the payment, or rent, you could afford is $\$ 10,000$ : $97,120 / 10,000=9.712$. The answer would be 15 payments. Or in another version of this with the same facts, you want to know you true interest. You find the factor in the $6 \%$ interest column.

Besides mortgage payments, weddings, investments, and setting up a child's education fund, you can use this tool for retirement planning. How much money will you have at a certain age? Might you need to be a more aggressive investor now? Or later? What will it take? Use this time value of money tool to figure it out.


## 8 Long-Term Care Insurance: Medicare and Medicaid, Long-Term Care Insurance and Options

There are options available if or when it becomes necessary to consider assisted living or nursing home care.

At some point in life, an individual may find that either a nursing home or assisted living facility is the only choice available because of illness or disability. Even having a family is no guarantee that this won't happen. The very thought of such an arrangement is troubling for everyone, especially because of the cost involved, which can run $\$ 60,000-\$ 70,000$ each year. Paying out of one's own assets means rapid depletion.

### 8.1 Medicare and Medicaid

Medicare is often someone's first choice. However Medicare will pay for only 100 days for each treatment incidence. The time after that initial 3+ months has to be paid somehow, especially considering that the average nursing home stay is usually about $2^{1 / 2}$ years. Even if the individual does return home, often there can be a protracted period where he or she needs extra help with simple daily chores, like bathing, eating, and dressing.

So what else is available over and above Medicare? There are some choices, such as applying for Medicaid, purchasing long-term care insurance, or providing self-insurance.

Medicaid is a Federally-mandated program designed for those who can least afford care. However, states usually make their own rules about who and what are covered. To apply for Medicaid, the individual must meet an income test. Currently that is total household income at $133 \%$ over the Federal poverty line, excluding the costs of mortgage or rent, taxes, maintenance, and utilities. There is an extra allowance for a dependent family living with a non-institutionalized spouse, whether the home is owned or rented. If the spouse is institutionalized there are allowances for his or her needs as well. Finally there are community waivers allowances and an asset test of $\$ 2,000$ for countable assets such as vehicles, real estate, jewelry and the like. Non-countable assets include cash value of life insurance, burial funds up to $\$ 1,800$, and personal residence. Anything in excess of that $\$ 2,000$ cap can be used for an institutionalized spouse to pay for his or her care, or can be transferred to a spouse living at home.

Many elder care attorneys advise their clients to transfer assets to family members but that can get complicated because of valuing those assets based on a Fair Market Value (FMV), and often involves a penalty.

The penalty period involves the time before the applicant would be eligible to receive Medicaid assistance and varies from state to state, beginning either on the first day of the month in which the transfer occurs or the first day of the next month. It is calculated by dividing the amount below the FMV by the monthly cost which a private care patient would pay within that geographical area. For example, say Sam Cheat transferred real estate valued at $\$ 150,000$ to his son Joe on February 20, 2010 for zero compensation. Looks like Sam and Joe are living up their names! The average monthly cost of private care in their home area is $\$ 10,000$ per month. So the computation would be $\$ 150,000$ (the FMV of the property transferred to Joe at no cost) divided by the monthly cost of a private patient, and we get $15: 150,000 / 10,000=15$. So Mr. Cheat would be eligible for Medicaid assistance 15 months after he first applied.

### 8.2 Long-Term Care Insurance and Options



Long-term care insurance is more expensive to buy the older one is when he or she applies for the policy. For example, if you plan to buy insurance at age 65 , it can cost from $\$ 1,000$ to $\$ 3,000$ per year. It is even higher at age 75 . That cost could be prohibitive. I believe the best time to look into a policy is before age 60. I bought a policy for myself and my wife, who is $5^{1 / 2}$ years younger than I, nearly 20 years ago. Her cost was $\$ 1,200$ but mine was $\$ 1,800$. And these were not high end policies. They have limits on how much the insurance company will pay for daily costs and would only pay for three years. After that - if we have survived and are still institutionalized - we would apply for Medicaid or be responsible for the costs ourselves.

Many facilities for older adults provide varying levels of care. Some people move into a minimal-care facility, like a senior residence, and consider it simply as a retirement home. This facility then becomes a place to have meals prepared, and to share companionship and activities with others of similar age. However as people age they may not be able to perform daily activities without substantial assistance. If someone can no longer perform two or more activities, such as dressing, walking, eating, toileting, bathing or showering, getting out of bed, or taking medications correctly, a qualified long-term care policy would pay for these costs as the person moves into an assisted living part of the facility. Eventually the individual's overall health might deteriorate, requiring more skilled medical assistance: a move from assisted living into a formal nursing home.

When someone moves into assisted living and do not have long-term care insurance to cover their costs, they would be able to deduct the cost of the room and board and all medical treatments on their tax return. Most people in this situation pay little or no income tax at this point in their lives so they would lose the benefit of deductions as high as $\$ 60,000$ to $\$ 70,000$.

Another option - which could help avoid nursing home costs or out-of-pocket expenses - is to opt for home care. But those costs are only partially covered by Medicare and could quickly deplete one's estate.

The final option would be to self-insure - to create your own insurance policy to cover long-term care costs. However financial advisors recommend an income-producing estate of at least $\$ 2$ million before such a policy would be a benefit.

## 9 Life Insurance: Why have Life Insurance, Term \& Whole Life Policies, Insurance as Investment and Tax Tool, Universal Life, Insurance for Children, Stock \& Mutual Companies, Tax Consequences of Life Insurance

Having life insurance should be a necessity for anyone who has a family to protect that would suffer when there is a substantial loss of income. But there are many choices when it comes to types of policies, terms, costs, and benefits.


### 9.1 Why Have Life Insurance?

The primary purpose of life insurance is to provide alternate funds for your spouse and dependents, especially younger children, after you die. The more wealth and income you have, the greater the need for life insurance.

I had a friend who had no life insurance at the time of his death. Now his widow suffers because of his critical mistake. She has lost her home and has two jobs now in her early 60 s, a time when she should be planning a comfortable retirement. Part of his having had no life insurance was his poor physical health, but also he disliked the insurance industry and the persons who "peddle its products."

### 9.2 Term Insurance

There are numerous kinds of life insurance, but in essence, there are two distinct types with degrees of differences. The first is term insurance, which is sometimes identified as "pure" insurance. It has no cash value and has a limited life. Sometimes the term can be as short as an airline flight - nearly everyone is familiar with places in airports
 where you can buy flight insurance, which is really simply a term policy. The terms in years for most insurance policies can be for a period such as 30 to 40 years, if purchased at a relatively young age, or when reaching a preset age such as 60 or 65 , at which point coverage ceases.

### 9.3 Whole Life Policies

Another type is whole life policies, which unlike term insurance, continue for life or become paid-up after a certain number of years. These usually have no cash value until the third year of coverage. The first years of the policy cover the mortality costs of the insurance which is based on life expectancy. Typically most whole life policies have level payment terms for the duration of the policy, which means the premiums do not change over time. In effect the insurance company requires you to "overpay" in the early years so that they can invest the money to earn enough to pay the death benefit later. Eventually you are actually "underpaying" the premium, even though the amount hasn't changed. Insured persons want their premiums to be a level amount rather than having the premium increase each year as the insured gets older and the probability of death increases each year. That certainly helps with budgeting.

The insurance company uses actuarial tables to calculate the level premium required. Mortality tables are calculations of life expectancies rate. At one time there were different tables for males and females because women on average outlive males. However, the Supreme Court struck this down as a wrongful bias, and now these tables are genderless.

Some people argue that a person should only invest in term insurance and then re-invest the savings from the lower premiums in non-insurance vehicles. I personally believe this is not sound because it defeats the tax saving features that you receive from whole life insurance products: the tax-free build-up and the nontaxable proceeds to the beneficiaries of the policy.

I personally have about $\$ 400,000$ face value in insurance, a large part of which is term insurance. I personally believe you should have some term policies in your insurance portfolio. How much is a matter of argument. When you are newly married with young children, most of your insurance should be term, the least expensive type and probably usually all that most young married couples with children can afford. As you get older, you should consider dropping your term policies, simply by not paying the next premium due. Why? Because the very reason for needing them is changing: your children are growing and may no longer be dependent on your support. Secondly the cost of premiums increases as you get older.

### 9.4 Insurance as an Investment and Tax Tool

There are some financial planners who believe whole life insurance can be a useful tax tool as an investment vehicle. The whole life policies are often paid up after a certain number of years or when the policy holder reaches a preset age, such as age as 60 or 65 . The first tax advantage is that the cash value buildup is tax-free. The owner or the insured (which may not be the same person in every instance) is not taxed on the cash value increases which begin around the third year of the policy. A person can surrender or cancel the policy, and withdrawing that increased value has almost no tax effect as long as the cash withdrawn is less than the total premiums paid. In most cases, until one reaches his or her 70s or 80 s, the premiums paid will exceed the cash withdrawn.

The other tax advantage of life insurance is for the beneficiaries who receive the face value of the policy, minus any ${ }^{6}$ loans against it, income tax free on the insured's death. Rather recently some financial advisors have begun to look on whole life policies as a type of Roth IRA that has no income limitations like contributing to a Roth IRA does (See chapter 6). However, using life insurance is probably a more expensive way to reap the benefits of a Roth IRA. A better income tax strategy is to contribute to a non-deductible IRA if your income is too large, based on filing status, and then convert that amount to a Roth IRA, which does not currently have any income limitations.

Term insurance can be an annual renewable term which means the insurance company guarantees the right to a certain amount of insurance regardless of your health and other risks of death. The rate may not be guaranteed in all of these policies. Most employers provide employees with this type of term policy during an individual's working career, and in some cases during their retirement years. Usually this amount is $11 / 2$ or 2 times the employee's wage or salary. Sometimes an employer will continue the policy into retirement years for a period of time and will gradually decrease it but then make it permanent at a reduced amount. For example, when I took early retirement in 1993 I was provided with $\$ 75,000$ of term insurance. However, this decreased by $\$ 5,000$ each year until it reached $\$ 50,000$ and was then was fixed at that amount where it has remained.

Decreasing term is a type of term insurance where the face value of the policy decreases after a certain number of years have passed. Your mortgage lender may require you to purchase a term policy that you must maintain, but can decrease in benefit because your mortgage debt principal is decreasing.

A whole-life policy, sometimes called ordinary life, means the face and premium remain the same over life of the insured. To allow the insurance company to accomplish this, it charges the insured an amount greater than their actual mortality cost as discussed above. Receiving this money allows the company to provide a cash value in the policy.

A variation of whole-life policy is called paid up life insurance, where the insured stops paying premiums after a certain period of time, such as 30 -year paid up life or paid up at age 60 or 65 . Because of the artificial nature of these policies, the insurance companies charge a higher premium in the earlier years of the policy than their mortality cost. The paid up feature is more of a marketing scheme than a valid cost.

Another version of whole-life is an endowment policy. Often there is a provision in the contract that at some age the insured can convert the endowment or face value into an annuity.

### 9.5 Universal Life

Universal life (the true technical term is Flexible Premium Adjustable Life) is a policy that offers two death benefits. One option is a level benefit, actually the product of combining an increasing cash value and a decreasing term amount. A second option is an increasing death benefit with a level term amount. The accumulated cash value is the total death benefit. The differences are again marketing schemes and some insurance companies are accepting the premium over the mortality cost and putting that extra premium into a savings fund while keeping the policy as a true insurance product.
 Many insurance companies offer single-premium life where the insured pays one premium although this is usually done later in life. The policy is fully paid up with that one premium.

Insurance companies can offer double and triple indemnity policies. In most cases if a person dies an accidental death rather than an illness the policy will pay double or triple the face value. The extra cost is minor and I personally purchased a double indemnity policy.

As I suggested earlier, some people have very little or no life insurance but I believe that investing in other products is akin to having no auto insurance. What we all know for certain is that everyone will die some day but we cannot determine when that day is or even how we will die, unless we take our own life. Most life insurance policies have a suicide clause which negates the policy if the insured takes his or her own life very shortly after purchasing the policy.

There is no question in my mind that a person should have a reasonable amount of life insurance. The amount may be different at various times of a person's life and the type whole life and term. When you are young with dependent children, you probably need more coverage, possibly most of it term because that might be all you could afford. When one still has a large mortgage on their real estate holdings or other financial obligations, there is a need for enough cash to cover these liabilities on the insured's death. There are certain rules of thumb as to amount of insurance one needs to provide replacement for lost income due to death. Most experts cite 70 to $75 \%$ of salary. The reason you don't need $100 \%$ replacement is the beneficiaries will not have to pay income taxes on the insurance proceeds. Most individuals have a combined federal and state income tax of 25 to $30 \%$, so not having to pay income tax on the proceeds is like getting additional money.

### 9.6 Stock and Mutual Companies

There are two types of insurance companies: stock companies and mutual companies. The stock companies are owned by stockholders and mutual companies are owned by the policy holders. Probably the most famous mutual company is Northwestern Mutual Life (NML) whose headquarters is in Milwaukee, Wisconsin. Most of my life insurance happens to be with NML and the rest is with Prudential Insurance Company, which demutualized sometime in $1990 \mathrm{~s}^{7}$. The selling agent is treated as an employee on some of his transactions and as an independent contractor on other business. There is no particular reason one should choose one over the other, but rather how much service a company offers and at what cost. In both cases some are well run and some are not. You should look at their products, services, and costs.
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There is frequently a question of whether one should purchase a policy for children. The answer is almost a universal no, unless the child makes a lot of money as a prodigy or has an illness that threatens to shorten their life. But if they have the illness already, they may be uninsurable or the policy may be cost prohibitive. I bought several policies on my youngest daughter, who now happens to be married and the mother of two children. The reason I did this was that she was afflicted with a deadly and often fatal eating disorder. She was close to death while in college. Her weight went as low as 75 pounds and her heart rate was "incompatible with life." I paid the premium because she couldn't have afforded it herself. Her husband is a doctor and they now can afford to pay it themselves. I just had an opportunity to purchase $\$ 50,000$ more on her life and I chose to pay the first year's premium realizing that because of huge medical school debt they would probably not make the choice to purchase this added coverage on their own.

### 9.7 Insurance for Children

Some people purchase life insurance policies on their children to be used later for higher education expenses. I do not consider this a wise strategy. A more effective tool would be a Section 529 plan, which allows one to provide unlimited amounts for higher education for dependent children, nondependent children, grandchildren, nieces, nephews and, yes, you or your spouse.

There is often a state income tax deduction if you place the money in certain state-approved plans. The state of Wisconsin offers a $\$ 3,000$ deduction per qualified person making the contribution. The money grows income tax free and can be spent on tuition, book, materials, or room and board. There is a type of policy that is "second to die" life insurance. About 15 years ago, I purchased such a policy on my wife and myself. It was an inexpensive way to obtain significant insurance value. The company will pay out the proceeds only on the death of the second spouse. The value here is that of a cheaper policy: the insurer waits until two lives are ended before having to pay proceeds.

There are always some insurance agents who suggest you should replace an existing policy with a new policy. Most of the time it is with a different insurance company and rarely is it with the same insurance company but a different insurance product. State law requires the agent disclose to the insured that the cost will be less and there will be no significant loss of benefits. There are two important circumstances where you would not replace an existing policy: if the insured has become uninsurable and if there would be no significant savings. Some agents can use misleading facts to, in effect, defraud the insured. You should seek out a financial advisor who is not selling the insurance, even if he charges you to evaluate the replacing action.

### 9.8 Tax Consequences of Life Insurance

Finally you should understand the basic income tax consequences of life insurance. First, the most important is that the proceeds will almost always come income tax-free to the beneficiary but almost never be estate tax-free. There are some unusual circumstances where a payment on death will be taxable such as if the policy is transferred from the owner to another person or entity and the transfer was for valuable consideration. For example, you might have a creditor require that you transfer an existing policy on your life to him or her because you are having trouble paying the debt. Then the transferee would continue to pay the premiums because he now owns the policy. To the extent of the consideration and the later premiums they would pay, that part of the proceeds would be income tax-free, but any excess would be taxable. Sometimes the insured cashes in their life insurance at some later date. Most of the time, this payment to the insured would be tax-free unless the proceeds exceeded the total premiums paid. Unless the person is fairly old, this should be tax-free.

Finally there is the important tax-free build up. Many corporations purchase what is call "key man" life insurance on their higher echelon managers as a protection for the almost certain loss of knowhow on their death. This purchase might be avoided if your organization has an effective succession policy and young managers are mentored by the older and more skilled executives.

The main reason someone chooses a life insurance policy is to protect your family by replacing lost income when one dies. Again let me stress that life insurance should be part of your savings and investing strategies. Whatever amount and whatever type is a matter of choice and a vitally necessary one: Being without insurance would be a disastrous choice!

# 10 Bankruptcy: The Bankruptcy Act, Chapter 7 or 13, Chapter 11, Credit Reporting Agencies, Hiring an Attorney, Some Longterm Considerations 

> Bankruptcy might seem to be an easy way to get out of debt, but it is actually a complex process involving the legal system, something that will impact one's life for many years after filing.


#### Abstract

When I first thought about this book, I did not realize that I could include a chapter on bankruptcy. Then I realized that a person might need some advice about protection under the law because of unemployment, poor choices in saving and investing, overextension of debt, or unpaid medical bills. It might be a case of bad luck or it might be because of involvement in a scheme that at the time seemed to be too good to be true - which means it usually it is. I felt I needed to provide such a chapter that might help people find a way out of their obligations and get a new start while understanding the ramifications.


### 10.1 The Bankruptcy Act

The most recent law, passed in 2005, is called the "The Bankruptcy Abuse and Consumer Protect Act." Some of the key features include:
a) A Means Test, which says that, literally, with a certain monthly income you may not file under a particular Chapter, as explained below;
b) You must have filed a federal income tax return for the previous year;
c) Filers must undergo credit counseling, which I think is a very good provision, because it might help avoid problems in the future that them
 into this position.

A bankruptcy is a plan under federal law allowing someone to discharge most of their debt by giving up some assets while exempting some others. ${ }^{8}$ That means some assets must be sold by the filer and the proceeds given to the bankruptcy judge, who then forwards those on to the creditors. An example of an exemption is a home valued at a particular amount (in Wisconsin that's $\$ 75,000$ ) that would not have to be sold.

Generally the court procedure - and bankruptcies do go before a court - is fairly informal. However you must provide at the outset a variety of forms, such as pay stubs, tax returns, lists of creditors, etc., so that it can be determined what Chapter you qualify for.

### 10.2 Chapter 7 or 13

Let's begin with the various kinds of bankruptcy that are available. There is Chapter 7, which deals with bankruptcies where the filer's income doesn't reach a certain level. The advantage of Chapter 7 is that there an automatic stay is granted, which means all collection efforts by creditors, such as wage garnishments and foreclosure proceedings, must stop.

If your income is too high for Chapter 7, you then proceed under Chapter 13. Rather than debts being discharged, you are in effect reorganizing, which is a means of extending the time to repay your obligations over a three- to five-year time frame. It also protects cosigners on your debt. The amount to repay may be reduced to what your income level can afford. You need to be a wage earner with a job or be selfemployed to file under Chapter 13.

### 10.3 Chapter 11

Chapter 11 is for businesses. Under this chapter a company may ask the court for assistance in helping to reorganize, thus warding off collection efforts from creditors, employees, and pension obligations. Under state law there are exemptions, property that will not be used to satisfy creditor claims, including homesteads up to a limited
 amount of equity, vehicles up to fairly small value, personal property such as clothes, family photos, school books, etc., life insurance, tradesman tools up to certain dollar amount, and up to $85 \%$ of a person's weekly wage. This allows you to continue to live during the bankruptcy and hopefully produce resources that may help build up future good credit.

### 10.4 Credit Reporting Agencies

Credit reporting agencies will always disclose a bankruptcy, but they also show the pattern of payments an individual has followed. For example, if someone is habitually late paying credit
 cards or is carrying a large amount of debt relative to income, these could be a sign to a potential lender that someone is heading for financial trouble. Reports also show how many credit-granting organizations have made inquiries recently - which could mean that someone has been having a hard time getting a loan. Credit may be granted, but it would be at a high interest rate.

### 10.5 Hiring an Attorney

You have the choice of doing your own filing or hiring a bankruptcy attorney. I think anyone who does not use professional resources is asking for trouble. There is an old adage, "He who acts as his own lawyer has a fool for a client." I am told the new law makes the filing very complicated, so that the entire process speaks to why you should not go it alone. It's just too easy to lose more than you gain. As an example, as a CPA, when a new client has prepared their own prior years' income tax returns, I usually find serious errors which favor the government over the taxpayer. If it amounts to a significant dollar figure, I suggest that we file an amended return. As a
 professional I know the right questions to ask, as would an attorney.

In my personal experience as an accountant, I can recall only two or three cases where someone went into bankruptcy. My wife worked as a credit investigator for an auto manufacturer, and she recalls one applicant who claimed to have filed bankruptcy because he didn't want to make repairs to a home he was trying to sell. That just didn't make sense and was in fact actually spurious. The reason for a bankruptcy doesn't generally matter, just the fact that it appears on a credit report. That applicant was turned down.


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### 10.6 Some Long-term Considerations



A bankruptcy is a stigma, a major negative on a credit report, and that may make it difficult to obtain future credit with reasonable terms. Also you must wait seven years to again obtain protection under the law. So it really makes sense to look at alternatives. Seeking out family or relatives to help in meeting your obligations might be a better strategy in the long run.

But after all is said and done, there is life after bankruptcy and it's usually best spent trying to reestablish one's credit for the future. For a while you may want to use only cash, be current in paying your new obligations, obtain your credit report, continue working, and eventually get a credit card to be used for small purchases which you pay off in a timely manner.

Bankruptcy is a tricky process but is designed to help you when you are having real
 financial problems. It should be used only if no other less damaging alternatives are available.

## 11 Financial Statement Analysis: Why Analyze Statements at all, Income Statement Ratios, Balance Sheet Ratios, Combined Ratios


#### Abstract

One of the best ways to invest wisely - and to get a return on that investment - is to analyze the financial statements of a company you're interested in. There are tools that can help an effective and sophisticated investor look at how the company is doing.


### 11.1 Why Analyze Statements at all?

To be an effective and sophisticated investor, you need analytical tools to help evaluate the numbers in a manner which allows comparisons both over time and with other companies in the same industry. Why go through all that trouble? Because trends and history matter.

There are many accepted ratios and standard measurements that have stood the test of time, the same tools used by investors and credit grantors when looking at a company. However, as helpful as this might be, you should understand that numbers could be manipulated by unscrupulous persons: these individuals could enter transactions just at the time statements are prepared to enhance numbers. Actually these transactions do not really change the economic reality but can be made to appear to do so.

The ratios sometimes reflect numbers from the income statement alone, others from the balance sheet alone, and still others from both financial statements. I will list them first, show how they are calculated, then illustrate how they can be manipulated.

## Income Statement Ratios and Measurements

1. Earnings per share
2. Price times earnings
3. Profit margin
4. Gross Profit Margin and Cost of Goods Sold Margin

## Balance Sheet Ratios and Measurements

1. Working Capital
2. Current Ratio
3. Acid test(quick) Ratio
4. Debt to Equity

## Combination Ratios and Measurements

1. Accounts Receivable Turnover and Number of Days Sales in Receivables
2. Inventory Turnover and Number of Day Sales in Inventories
3. Asset Turnover
4. Rate of Return on Operating Assets
5. Return on Common Stockholders' Equity
6. Dividend Yield
7. Number of times interest charge is being met


### 11.2 Income Statement Ratios and Measurements

The earnings per share (EPS) is calculated by dividing the net earnings by the average number of shares outstanding. If there are special items, such as discontinuance of a major segment of a business, those earnings are expressed as per share amount. If there are extraordinary gains and losses, another per share is calculated and finally a "bottom-line" earnings per shares. Most financial advisors want to use the EPS to calculate price times earnings ratio which is reflection of how much the investing market believes this corporation can generate similar earnings in the future. In today's market, a multiple of 15 is high, but in 1990s the multiples were 25 -to- 30 times earnings.

The profit margin (PM) is calculated by expressing the final net income figure, net of taxes and specially calculated earnings, as a percentage of sales. In grocery stores and other higher volume businesses, the ratio is low. While in jewelry and furs the ratio will be high. Again it helps your fundamental analysis to do comparisons with prior periods of that company and with other companies in that same industry. Robert Morris and Associates and Standard and Poor's (S\&P) publication are example of reliable sources for this comparison. Robert Morris provides measures examples for various size businesses to make the comparisons more meaningful.

Another useful ratio is the Gross Profit (GP) percentage and its complement, the Cost of Goods Sold percentage. They reveal the company's ability to mark up its product and still stay competitive.

### 11.3 Balance Sheet Ratios and Measurements

From a liquidity point of view - the company's ability to pay its bills in both the short and long run - there are several measures. Working capital is calculated by subtracting current liabilities from current assets. A related calculation is current assets divided by current liabilities which measures the short-term ability of a company to pay its current bills. A standard for most business is
 about two-to-one which means that the company has $\$ 2$ of current assets for each $\$ 1$ of current liabilities, but again comparisons with prior periods and with other companies in the same industry will provide the most meaning.

Sometimes creditors use a different measure to evaluate a company's ability to pay its short-term bills: the "acid test" ratio or "quick ratio". It is calculated by dividing current liabilities by current assets minus inventories and prepaids. The standard here is $\$ 1$ to $\$ 1$ but again it is more meaningful look at the history of a company and others in the same field.

Debt to equity is calculated by dividing total liabilities by total equity. It is measure of longer term liquidity and the company's solvency. If a company is borrowing extensively, it will have less flexibility to expand and diversify. It is no different than an individual who is heavily leveraged experiencing problems meeting both interest and principal payments when due. If a company had $\$ 1,000,000$ of total liabilities and $\$ 1,000,000$ of equity ( $1,000,000 / 1,000,000$ ), its debt-to-equity would be $100 \%$, which is relative high. Most companies would have anywhere from 50 to $60 \%$ debt-to-equity.

### 11.4 Combination Ratios and Measurements

Since the income statement represents the whole period while the balance sheet is a value at one point in time, the ratios and measurements that use both statements must use an average for the relevant balance sheet number. This is necessary because you would have to take all the numbers for that period of time and add them together then divide by the total number of items used. Accountants have developed a fast way to approximate the average by adding the beginning and ending balance and dividing this number by two (2). Much easier and less involved while still providing a viable number.

Accounts Receivable Turnover (ART) is measured by dividing total credit sales by average accounts receivable. For example, $\$ 1$ million of credit sales with an $\$ 80,000$ beginning receivable and $\$ 120,000$ ending receivables would equal an ART of 10 ( $[1,000,000 / 80,000]+120,000 / 2$ ). A closely related calculation is the number of days' sales in receivable which is calculated by dividing the number of days in a year by the $\operatorname{ART}(365 / 10=36.5$ days). If the company credit terms were $2 / 10$, net 30 , you would conclude that they are having collection problems because the term ( 36.5 days) is so long.

Inventory Turnover (IT) is calculated by dividing cost of goods sold by the average inventory. For example, a cost of goods sold of $\$ 700,000$ and a beginning inventory of $\$ 30,000$ and ending inventory of $\$ 40,000$ would equal an inventory turnover of $20([700,000 / 30,000]+40,000 / 2)$. A related calculation is the number days in inventory which is calculated by dividing the number of days in a year by the inventory turnover $(365 / 20=18$ rounded $)$. This means that on average, the items in inventory are gone from the floor in about 18 days. The higher price items would have a high number compared to low priced items.

Another turnover measure is the Asset Turnover (AT). It is calculated by dividing total sales by average assets. For example $\$ 10,000,000$ sales with average assets of $\$ 1,000,000$ would equal a turnover of 10 . For companies with higher price value, the ratio would be lower and vice versa.

Rate of Return on operating assets is calculated by dividing net operating earnings before income taxes by average assets. The reason "net earnings before income taxes" is used is that this measure evaluates the ability of a company to generate a return for all investors and creditors as well as equity owners.

To calculate the Return on Common Stockholders' Equity, compute net earnings minus preferred stock dividends divided by average common stockholders' equity. For a particular company, it would normally be higher than the Rate of Return because the denominator would be smaller using only the common stockholders' amounts.

Dividend Yield is calculated by dividing total dividends by current market price. It is a measurement which reflects the current income as a percentage of the investor's opportunity cost. The "Number of Times an Interest Charge" is being met is calculated by dividing the net income before interest expense and income taxes by the current interest charge. It reveals the current cushion that a creditor has for being paid his interest income. If a decline occurred in the business, this would measure the likely risk of the company's failure to meet its charges on its debt.

Why go through all this? Or even some of it? The point is to make a judgment as informed as possible before committing one's money to an investment. A few minutes spent investigating a company can pay off in the long run!

Now let's take some of these ratios and measurements and look at the Make Believe Company's income statement and balance sheet shown below, and see how the business is doing. (No peeking at the answers!)

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| Make Believe Company <br> Income Statement |  |
| :--- | ---: |
| For year ended 12/31/20xx |  |
| Sales | $\$ 1,000,000$ |
| Cost of Sales | $\underline{700,000}$ |
| Gross Profit | $\$ 300,000$ |
| Operating Expenses | $\underline{100,000}$ |
| Net Profit | $\underline{\$ 200,000}$ |


| Make Believe Company <br> Balance Sheet <br> As of 12/31/xx and 12/31/xy |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  | Liabilities \& Stockholders' Equity |  |  |
| Current Assets | 12/31/xx | 12/31/xy | Current Liabilities | 12/31/xx | 12/31/xy |
| Cash | 100,000 | 150,000 | Accts Payable | 50,000 | 10,000 |
| Mkt. Securities | 700,000 | 600,000 | Notes Payable | 400,000 | 400,000 |
| Accts. Receivable | 80,000 | 120,000 | Wages Payable | 50,000 | 90,000 |
| Mdse. Inventory | 40,000 | 30,000 | Total Crnt. Liab. | 500,000 | 500,000 |
| Prepaids | 80,000 | 10,000 | Long Term Bonds Payable | 100,000 | 10,000 |
| Total Crnt. Assets | 1,000,000 | 910,000 | Total Liabilities | 600,000 | 510,000 |
| Cash Value Life Ins. | 900,000 | 90,000 | Stockholders' Equity |  |  |
| Plant, Prop, Equip |  |  | Preferred Stock | 100,000 | 0 |
| Land | 100,000 | 100,000 | Common Stock | 800,000 | 600,000 |
| Building | 500,000 | 500,000 | Retained Earnings | 500,000 | 90,000 |
| Equipment | 700,000 | 700,000 | Total S/E | 1,400,000 | 690,000 |
| S/Total PP\&E | 1,300,000 | 1,300,000 |  |  |  |
| Less: Acc. Dep. | 1,200,000 | 1,100,000 |  |  |  |
| Total PP\&E | 100,000 | 200,000 | Total Liabilities and |  |  |
| Total Assets | 2,000,000 | 1,200,000 | Stockholders'Equity | 2,000,000 | 1,200,000 |

## Questions:

1) What is the (a) Profit Margin (PM) and (b) Gross Profit (GP) of Make Believe Company? (see page 3 for formulas)
a) $\qquad$
b) $\qquad$
2) Compute the Working Capital of Make Believe Company. (see pages 3-4 for formula)
3) What is the "acid test" or "quick ratio?" (see page 4) $\qquad$
4) Compute Make Believe Company's Debt-to-Equity ratio. (see page 4) $\qquad$
5) What is Make Believe Company's Rate of Return? (formula on page 5) $\qquad$

## Answers:

1) (a) The Profit Margin is $20 \%$, which is fairly high. $(200,000 / 1,000,000)$
(b) The Gross Profit is $30 \%$, which is high and probably represents a low price/high volume business. $(300,000 / 1,000,000)$
2) The Working Capital is 2 -to-1. $(1,000,000 / 500,000)$
3) "Acid test" or "quick ratio" is 1.8 , which means we have $\$ 1.80$ of quick assets with which to pay current liabilities of $\$ 1.00$. $(880,000 / 500,000)$
4) The company's debt-to-equity is $60 \%$. $(600,000 / 1,000,000)$
5) Make Believe Company's Rate of Return is $20 \%$. $(200,000 / 1,000,000)$

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## Endnotes

1. Savings accounts and CDs are insured by the Federal Deposit Insurance Corporation (FDIC) to a maximum aggregate of $\$ 250,000$ in each institution.
2. See Chapter 11 for a much more in depth look at analyzing Financial Statements.
3. Bonds do not have to be held to maturity. They can be sold in the bond market, but the investor risks selling at a lower-than-face value.
4. Ad valorem - based on the value of the business in certain state, such as Connecticut and Wisconsin.
5. Before recent law changes, an individual's Adjusted Gross Income (AGI) could not exceed $\$ 100,000$, but that is no longer the case.
6. Loans on an insurance policy are actually advances on the proceeds. So at the time of death the company owes its policy holder less than what would be paid to the beneficiary.
7. That means the company ceased to be owned by policy holders and is instead owned by shareholders. The stock is being given to the insured based on the dollar amount of the policy. When there is a dividend paid, that amount is subject to income tax and is not tax-free as it would be for a mutual company.
8. Even though this is a federal law, the property that is exempted from being included and disposed of is primarily a state determination.
