Course materials provided courtesy of Dr. Esther M. Maddux, PhD, CFP® of Kansas State University. Visit www.moneycrunch.org for details.

Starting Your Investment Program With $1 to $1,000

Lesson Three: Which Is The Best Alternative For Me?

Lesson Handout

Before you choose where you will place your money, evaluate each savings or investment option to see which best meets your needs. Table 3-1 illustrates how various savings and investment alternatives compare.

When choosing where to place your money, you will want to consider these criteria: safety of principal, liquidity, marketability, return on your money, how you will receive your yield, cost of investing, size of investment unit, how you will be taxed, amount of risk you are willing to take, types of investment risk, use as collateral, management, time to spend on investments, knowledge of investments, and stage of life cycle.

In this lesson, you will be provided criteria to use when selecting financial products. You will be able to:

- define the criteria you will use to evaluate financial products
- understand how to use the criteria to choose the appropriate mix of financial products for you

- evaluate financial products using the criteria that are a good fit for you

- identify personal risk tolerance level to select financial products that match

- know the factors that affect investment return including earnings, fees, and taxes to select the best financial product for you.

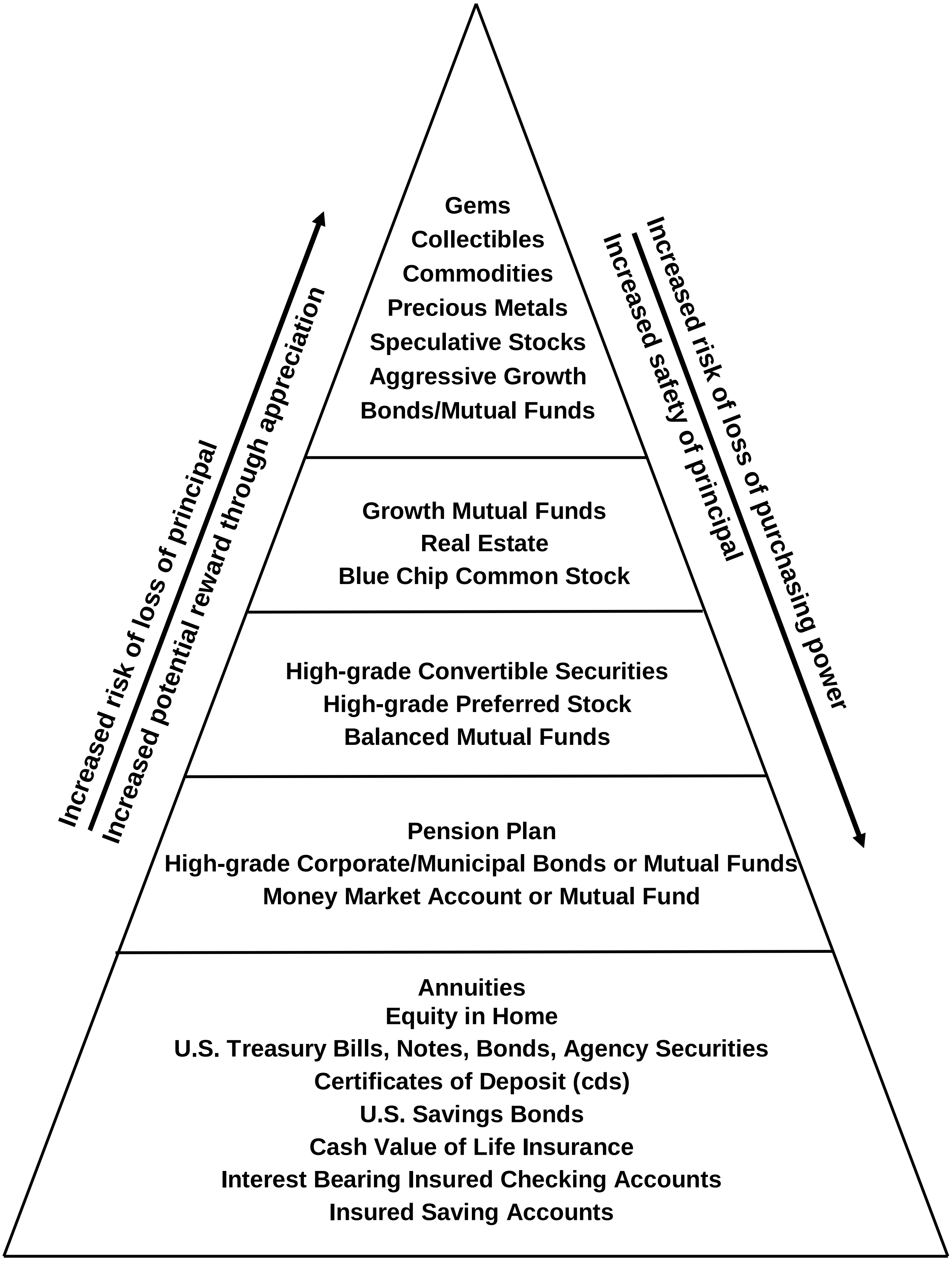
Safety of Principal

Safety of principal means the principal dollars you invest will remain intact. If you invest a dollar, you will get that dollar back. If you place $1,000 in a certificate of deposit (CD), you will get your $1,000 plus earnings when you withdraw your money. If you place $1,000 into stock and the price has declined when you withdraw your money, you may not get back all of your initial investment (See Figure 3-1). Investments at the base of the pyramid allow you to preserve your principal dollars. The higher you move up the investment pyramid, the greater your chance of losing principal dollars.

Table 3-1
HOW INVESTMENT ALTERNATIVES COMPARE

Investment	Safety of Principal	Liquidity	Marketability	Current Yield	Inflation Resistance	Sources of Risk
Insured savings account	excellent	excellent	none	poor	poor	purchasing power/ interest rate
U.S. Savings Bonds						
First year	excellent	excellent	none	poor	poor	purchasing power/ interest rate
Held to maturity	excellent	excellent	none	fair	poor	
Certificates of deposit	excellent	good/fair	none	fair/good	poor	purchasing power/ interest rate
Government securities						
Treasury bills	excellent	good	moderate	fair	good	purchasing power/ interest rate
Medium-term notes	excellent	good	moderate	good	fair	
Long-term bonds	excellent	good	moderate	excellent	poor	
High Grade Common Stocks	fair	good/fair	excellent	poor	good	market/business
High Grade Preferred Stocks	good	good	good	excellent	poor	purchasing power/ interest rate
High Grade Corporate Bonds	good	good	good	excellent	poor	purchasing power/ interest rate
Real Estate						
Land	good	poor	poor	none	good	market/business
Retail property	good	poor	poor	varies	good	market/business

For mutual funds, the underlying investment will determine its characteristics.



Investment Pyramid
Figure 3 - 1

Liquidity

Liquidity is the ease with which your investment can be converted to cash without loss. You can get your cash quickly if you need it for an emergency. You can get your money from a savings account or money market account quickly without penalty. If you cash in a Certificate of Deposit (CD) prematurely, there is a penalty for early withdrawal. If you have your money in real estate, there may not be a buyer when you need your money. Investments at the base of the pyramid tend to be more liquid and conservative. Investments toward the top of the pyramid are more non-liquid and speculative.

Marketability

Marketability is the degree to which there is an active market to trade your investment. If you own real estate and need the money, there may not be a buyer when you need to sell. Savings accounts don't have a market, but they are very liquid.

Return on Money

The reason you invest is to earn money on the money you invest. *Yield* is the rate of financial return that you earn from your investment. You want your investment to yield the largest return possible.

How your money grows will influence how quickly you can reach your financial goals. Here's how your money can grow if you invest $100 at the beginning of each month. If you put aside $100 a month at the beginning of each month for 30 years at 5% interest, you will accumulate $83,573. If you receive 10% interest, you will accumulate $277,933. See Table 3-2. Table 3-3 illustrates how a lump sum of $1,000 invested at 5.5% interest will grow to $2,232 at the end of 15 years or $5,118 at 11.5% interest over 15 years.

Table 3-2
CALCULATING THE FUTURE VALUE OF A REGULAR SERIES OF PAYMENTS AT THE BEGINNING OF THE PERIOD

Monthly	$100	Future	$83,573
Deposit	5.0%	Value	
Interest Rate	30		
# of Periods			

At the End Of Year	5.0%	5.5%	6.0%	8.0%	10.0%
1	1233	1236	1240	1253	1267
2	2529	2542	2556	2611	2667
3	3891	3922	3953	4081	4213
4	5324	5380	5437	5673	5921
5	6829	6920	7012	7397	7808
6	8411	8546	8684	9264	9893
7	10075	10265	10459	11286	12196
8	11823	12080	12344	13476	14740
9	13661	13998	14345	15848	17550
10	15593	16024	16470	18417	20655
11	17624	18164	18725	21198	24085
12	19758	20425	21120	24211	27874
13	22002	22814	23662	27474	32060
14	24361	25337	26362	31008	36684
15	26840	28002	29227	34835	41792
16	29446	30818	32270	38979	47436
17	32186	33793	25500	43468	53670
18	35066	36936	38929	48329	60557
19	38093	40255	42570	53593	68165
20	41275	43762	46435	59295	76570
21	44619	47467	50539	65469	85855
22	48135	51381	54896	72157	96112
23	51831	55516	59521	79399	107443
24	55716	59884	64432	87242	119961
25	59799	64498	69646	95737	133789
26	64092	69373	75181	104936	149066
27	68604	74522	81058	114899	165942
28	73346	79962	87297	125689	184585
29	78332	85709	93921	137374	205180
30	83573	91870	100954	150030	227933

TABLE 3-3
CACLULATING THE FUTURE VALUE OF A LUMP SUM INVESTMENT

Monthly	$1,000		$2,232			
Deposit	5.5%					
Interest Rate	15					
# of Periods						
At The End Of Year	1.5%	3.5%	5.5%	7.5%	9.5%	11.5%
1	1015	1035	1055	1075	1095	1115
2	1030	1071	1113	1156	1199	1243
3	1046	1109	1174	1242	1313	1386
4	1061	1148	1239	1335	1438	1546
5	1077	1188	1307	1436	1574	1723
6	1093	1229	1379	1543	1724	1922
7	1110	1272	1455	1659	1888	2143
8	1126	1317	1535	1783	2067	2389
9	1143	1363	1619	1917	2263	2664
10	1161	1411	1708	2061	2478	2970
11	1178	1460	1802	2216	2714	3311
12	1196	1511	1901	2382	2971	3692
13	1214	1564	2006	2560	3254	4117
14	1232	1619	2116	2752	3563	4590
15	1250	1675	2232	2959	3901	5118

Compounding

Interest is the rate paid for the use of money. For savings, it is often expressed as an annual percentage of principal. This is known as the annual percentage rate (APR). If the account compounds, the annual percentage yield (APY) is the rate of return on the investment for a one-year period.

Compounding means the interest you earn is added to your account. Your balance in your investment has three parts: 1) the initial amount you invest (the principal), 2) the interest you earn on your initial balance, and 3) the interest you earn on your interest that you left in your investment. Interest may be compounded annually, quarterly, monthly, weekly, or daily. Greater frequency of compounding speeds up the rate at which your account grows. Compounding makes the most difference if your account is large, if you keep your money in the account a long time, or if you get the highest rate possible. (See Table 3-4).

Table 3-4
Effective Annual Yield
At Various Compounding Frequencies

	An investment paying this rate			
	6%	8%	10%	12%
Compounding	has an effective annual yield of			
annually	6	8	10	12
quarterly	6.14	8.24	10.38	12.55
monthly	6.17	8.30	10.47	12.68
daily	6.18	8.33	10.52	12.75

Here's how a $1,000 lump sum investment will grow if it compounds annually. (See Table 3-5.)

Table 3-5

	Number of Years		
Interest Rage (Compounded Annually)	10 Years	20 Years	30 Years
6%	$1,791	$3,207	$ 5,743
8%	2,159	4,661	10,063
10%	2,594	6,727	17,449
12%	3,106	9,646	29,960
14%	3,707	13,743	50,950
16%	4,411	19,461	85,850

Here's how a $1,000 lump sum investment will grow if it compounds monthly. (See Table 3-6.)

Table 3-6

	Number of Years		
Interest Rage (Compounded Monthly)	10 Years	20 Years	30 Years
6%	$1,819	$ 3,310	$ 6,022
8%	2,219	4,926	10,935
10%	2,707	7,328	19,837
12%	3,300	10,892	35,949
14%	4,022	16,180	65,084
16%	4,900	24,019	117,716

Note the difference that compounding frequency makes. A $1,000 lump sum investment compounded annually at 6%, grows to $5,743 over 30 years. A $1,000 lump sum investment compounded monthly at 6% grows to $6,022 over 30 years. (See Tables 3-5 & 3-6.) Compounding monthly yields an additional $279 ($6022 - $5,743 = $279).

Here's how a $5,000 lump sum will grow compounded monthly. (See Table 3-7.)

Table 3-7

Interest Rage (Compounded Monthly)	Number of Years		
	10 Years	20 Years	30 Years
6%	$ 9,096	$ 16,551	$ 30,112
8%	11,098	24,634	54,678
10%	13,535	36,640	99,186
12%	16,502	54,462	179,748
14%	20,112	80,901	325,423
16%	24,504	120,096	588,584

Note the difference that investing a larger sum makes. A $5,000 lump sum investment compounded monthly at 6% grows to $30,112 over 30 years.

Rule of 72

The Rule of 72 links the length of time it takes one initial deposit to approximately double your money at a specific interest rate.

$$\frac{72}{\text{rate}} = \text{time} \qquad \frac{72}{\text{time}} = \text{rate}$$

To figure how long a time it will take for a sum to double at 10% interest rate, divide 72 by 10%.

$$\frac{72}{10\%} = 7.2 \text{ years}$$

That means $1,000 will become $2,000 in 7.2 years at a 10% interest rate.

To figure what rate of return you would have to receive to double your money in five years, divide
72 by 5.

$$\frac{72}{5} = 14.4\%$$

That means $1,000 will become $2,000 in five years at an annual interest rate of 14.4%.

The rule of 72 can also be applied to inflation. At 3% inflation, a car that costs $20,000 today will cost $40,000 in approximately 24 years.

$$\frac{72}{3\%} = 12 \text{ years}$$

Case Study: *If you place $1,000 into savings at 5.5%, how long will it take your money to double? (See Table 3-3.)*

Answer: $\frac{72}{5.5} = 13$ *years*

Your money will grow to $2,006 in 13 years.

Receiving Your Yield

You can choose to receive your earnings in three ways:

Current income (loanership) - You may need current income from your investment to meet your living expenses. This current income may be from interest, dividends, or rent earned from loaning your resources to others. So you would want to invest your money where you will receive a steady stream of income. One who needs investment earnings to help pay living expenses may want to receive a stable income and preserve principal dollars. CDs; government, corporate or municipal bonds; and fixed income annuities provide current income. They have predictable rates of interest (or income) and specific maturity dates.

Capital growth (ownership) - You may want to increase the value of what you invest, usually over a relatively long period of time. This can be done by reinvesting your income from investment earnings. It can also be accomplished by buying or owning assets that grow over time such as stocks or real estate. Your return comes from price increases over time. If an asset appreciates, the value of the property increases. If an asset depreciates, the value of the asset declines. See Figure 3-1. Assets toward the top of the pyramid have more opportunity to appreciate, however, you run the risk of losing principal dollars if the investment declines in value. Stocks, variable annuities and real estate have the potential to generate capital growth. Potential returns are less predictable in the short-run or year to year. Over the long run, annual returns including dividends and capital gains can exceed income investments.

Income and growth - You may earn a combination of income and growth from some investments. Rental property yields growth in equity and generates rental income. Some stocks yield capital gains as well as pay a dividend.

Cost of Investing

Your return from your investment can be reduced by various charges associated with purchasing, maintaining, redeeming, or selling investments. When selecting investment products, look for investment costs.

Before buying, get disclosures in writing about management fees and commissions. Is there a sales charge, commission, service charge, or annual management fee? How long is the money committed?

Before buying, find out how you can sell and what costs will be involved in doing so. Is there a fee or penalty for taking some or all of the money out (minimum balance penalties, withdrawal penalties, or tax penalties)? How long should your money be invested to get the most return? A deal that sounds too good to be true almost always is.

Will there be charges when you purchase the investment product, while you own the investment product, and when you exit the investment product? Are there commission/sales charges? Is there an initial fee or exit fee? Are there annual expenses? Sales charges can reduce your return.

Size of Investment Unit

The amount of money you have to invest at any one time will determine the investment options available to you. If you only have $1,000 you won't be able to purchase a mutual fund that requires an initial investment of $2,500. Investments may have minimum or maximum amounts. CDs usually have a $500 minimum. Individual Retirement Accounts (IRAs) have an individual maximum contribution limit of $5,000 ($6,000 if over 50) in 2009. *Frequency of contribution* is also important to consider. Will you make a one-time, regular, or sporadic contribution? Does the investment match your time horizon? Will it mature at a certain time? Or will you remain invested for an undetermined length of time.

Tax Consequences

Income taxes can have a major impact on your investment earnings. Consider how taxes will affect your earnings before you invest. Tax consequences are important but they should not be your only consideration when choosing an investment.

Are you investing with before-tax or after-tax dollars.

a. Contributing to an investment with *before-tax dollars* means you don't pay tax, except Social Security, before you invest. Examples include some retirement plans, tax-sheltered annuities, and deferred compensation plans. Taxes on the principal dollars you invest and on the earnings from these investments are deferred until you retire, become disabled or quit your job. This can substantially increase your yield compared to after-tax investments.

b. *After-tax dollars* means you pay tax on your earnings before the money is available to you to invest. Most savings and investments are made with after-tax dollars. When the principal dollars in your investment earn interest, dividends, rents, or capital gains, those earnings may be taxed as ordinary income, tax-exempt, or tax-deferred.

How are your investment earnings taxed while you are in an investment or when you get out of an investment? Will your investment earnings be taxed as ordinary income, tax-deferred, tax-exempt, shifted to a lesser taxed family member, or taxed as capital gains?

a. *Ordinary income* is income that is taxed at your marginal tax rate. Your earnings aren't deferred, exempt, or shifted to a lesser taxed family member. The marginal rate is the rate at which the last dollar of your income is taxed. By knowing your marginal tax rate you can determine the tax on an additional dollar of income. Table 3-8 shows tax rates for 2009.

Table 3-8
TAX-RATE SCHEDULE FOR 2009

Schedule X — Single

If taxable income is over--	But not over--	The tax is:
$0	$8,350	10% of the amount over $0
$8,350	$33,950	$835.00 plus 15% of the amount over $8,350
$33,950	$82,250	$4,675.00 plus 25% of the amount over $33,950
$82,250	$171,550	$16,750.00 plus 28% of the amount over $82,250
$171,550	$372,950	$41,754.00 plus 33% of the amount over $171,550
$372,950	no limit	$108,216.00 plus 35% of the amount over $372,950

Schedule Y-1 — Married Filing Jointly or Qualifying Widow(er)

If taxable income is over--	But not over--	The tax is:
$0	$16,700	10% of the amount over $0
$16,700	$67,900	$1,670.00 plus 15% of the amount over $16,700
$67,900	$137,050	$9,350.00 plus 25% of the amount over $67,900
$137,050	$208,850	$26,637.00 plus 28% of the amount over $137,050
$208,850	$372,950	$46,741.50 plus 33% of the amount over $208,850
$372,950	no limit	$100,894.50 plus 35% of the amount over $372,950

Schedule Y-2 — Married Filing Separately

If taxable income is over--	But not over--	The tax is:
$0	$8,350	10% of the amount over $0
$8,350	$33,950	$835.00 plus 15% of the amount over $8,350
$33,950	$68,525	$4,675.00 plus 25% of the amount over $33,950
$68,525	$104,425	$13,318.75 plus 28% of the amount over $68,525
$104,425	$186,475	$23,370.75 plus 33% of the amount over $104,425
$186,475	no limit	$50,447.25 plus 35% of the amount over $186,475

Schedule Z — Head of Household

If taxable income is over--	But not over--	The tax is:
$0	$11,950	10% of the amount over $0
$11,950	$45,500	$1,195.00 plus 15% of the amount over $11,950
$45,500	$117,450	$6,227.50 plus 25% of the amount over $45,500
$117,450	$190,200	$24,215.00 plus 28% of the amount over $117,450
$190,200	$372,950	$44,585.00 plus 33% of the amount over $190,200
$372,950	no limit	$104,892.50 plus 35% of the amount over $372,950

Example. Mr. and Mrs. Brown are filing a joint return. Their taxable income is $25,300. They use the Married Filing jointly table. Their income falls in the $16,700 to $67,900 bracket. That is the 15% tax bracket.

b. *Tax-deferred income* - Tax-deferred income means that your investment earnings are not taxed now. The taxes are deferred until a later period. Pension plans, IRAs, 401(k), 403(b), and 457 plans all defer income to be taxed at a later period. You are taxed when you withdraw the money at retirement, become disabled, or die.

c. *Tax-exempt income* - Tax-exempt income is not included in your gross income. Interest paid on many municipal bonds issued by states, cities, and agencies of cities and states is not subject to federal income tax. However, capital gains and interest earned on interest from municipal bonds are taxable.

Table 3-9 compares the financial consequences of investing with before-tax and after-tax dollars. It also compares the consequences of investment earnings being tax-deferred or taxed currently as ordinary income. Table 3-10 illustrates how to determine how much taxable yield you need to earn to equal the tax-exempt yield.

d. *Capital gains income* – Almost everything you own and use for personal purposes, pleasure or investment is a capital asset. When you sell a capital asset, the difference between the amount you sell it for and your basis (the amount you paid for it) is a capital gain or a capital loss. While you must report all capital gains, you may deduct only capital losses on investment property, not on personal property held for personal use. Capital gains income is the profit received from the sale or exchange of a capital asset.

   Capital gains and losses are classified as long-term or short-term, depending on how long you hold the property before you sell it. If you hold it more than one year, your capital gain or loss is long-term. If you hold it one year or less, your capital gain or loss is short-term. Net capital gain is the amount by which your net long-term capital gain is more than your net short-term capital loss. The tax rates that apply to net capital gains are generally lower than the tax rates that apply to other income and are called the maximum capital gains rates.

   The current maximum capital gains rates are 0, 15, 25, or 28%. If capital losses exceed capital gains, the excess is subtracted from other income on your tax return up to an annual limit of $3,000 ($1,500 if you are married filing separately) (Source: IRS Tax Tip 2009-35). If total net capital loss is more than yearly limit on capital deductions, you can carry over the unused to next year.

TABLE 3-9
PRE-TAX VS AFTER-TAX

Assume: $1,000 earned, 28% tax bracket, 6% annual interest

Contributions: Before-tax Earnings: Deferred		Contributions: After-tax Earnings: Deferred			Contributions: After-tax Earnings: Taxable		
Money Contributed:	$1,000.00	Money Contributed:	$1,000.00		Money Contributed:	$1,000.00	
28% Income Taxes:	-0	28% Income Taxes:	-280.00		28% Income Taxes:	-280.00	
Amount Invested:	$1,000.00	Amount Invested:	$ 720.00		Amount Invested	$ 720.00	
1st Year Earnings:	+60.00	1st Year Earnings:	43.20	(763.20)	1st Year Earnings:	43.20	(763.20)
28% Tax on Earnings:	-0	28% Tax on Earnings:	-0		28% Tax on Earnings: :	12.10	(43.20 x .28)
Value after 1 Year:	$1,060.00	Value after 1 Year:	$ 763.20		Value after 1 Year:	$ 751.10	
Examples: 401(k), 403(b), 457		Examples: IRA, Insurance Contracts			Examples: CDs or Savings Accounts		

TABLE 3-10
TAX-EQUIVALENT YIELD

To calculate taxable yield if you know the tax-exempt yield, use the **taxable yield (TY) formula:**

$$\text{TY} = \frac{\text{tax-exempt yield}}{\text{1.00 - federal marginal tax rate}}$$

For example, assume that you are a taxpayer at the 31% federal marginal tax rate and you are considering investing in a tax-exempt bond yielding 5.3%. Substituting figures, we have:

$$\text{TY} = \frac{5.3}{1.00 - 0.31}$$

$$= \frac{5.3}{0.69}$$

$$= 7.7\%$$

A 7.7% taxable return is equivalent to a 5.3 tax-exempt yield. You would have to get a taxable yield greater than 7.7% to do better than a tax-exempt yield of 5.3%.

When you know the taxable yield, you can change the mathematics using the **tax-exempt yield (TEY) formula:**

$$\text{TEY} = \text{taxable yield x (1.00 - federal marginal tax rate)}$$

$$\text{TEY} = 7.7 \times (1.00 - 0.31)$$
$$= 7.7 \times 0.69$$
$$= 5.3\%$$

Source: Garman, 1994, 529-530.

Risk

How much risk are you comfortable with? Investors have different temperaments. They also have different tolerance limits as to the amount of risk they are willing to take with their hard-earned savings. Which category fits you?

1. Do you prefer to take *substantial* risk hoping to realize substantial financial gains?
2. Do you prefer to take *moderate* risk hoping to achieve above average gains?
3. Do you prefer to take a small amount of risk hoping to realize a fair return?
4. Do you prefer to reduce risk to the barest minimum?

If an investment that loses value causes you to lose sleep or appetite, it may be the wrong investment for you. If you become too emotionally involved with your investment, it may keep you from being objective. If you want to take some risk, protect yourself. Divide your investments between those that are relatively safe and those involving more risk. This is called *diversification*.

Risk is the possibility of loss from an investment. *Reward* is the potential gain from an investment. The challenge of investing is to weigh the risks of an investment against the potential rewards. Risk and return are directly related. The more opportunity you have for higher yields, the bigger risk there is that you may lose your principal dollars.

To reduce risk in investing, diversify. As the old saying goes, "Don't put all of your eggs in one basket." Spread your money among a variety of investments, not just in one specific type of investment or one kind of financial product class. Avoid putting all of your money into a specific type of investment, one stock, one bond, one mutual fund, annuity or CD. Avoid putting all of your money into one type of financial product class, stocks only, bonds only, mutual fund, annuity, real estate and cash equivalents like a CD. Avoid putting more than 20% of your investment into a single type of investment. If you concentrate on a particular investment product class, spread your investments among different companies within that industry. Do not invest more than you can afford to lose.

Ladder: Vary maturity. Invest so maturity dates will be spread over time, not on the same day or month.

Diversify by region or market sector. Avoid putting all of your money in businesses that rely on the economic prosperity of one region of the country or world, or in businesses concentrating in one industry, such as utilities, health care, transportation or manufacturing. While one industry may be in a declining period, another may be rising.

Deal with established businesses and professionals whose reputations are known in the community. If the sales representative is not from your local area, investigate the person and company before you buy. Check with your registered stock broker, banker, lawyer, accountant, or real estate agent. If in doubt, contact your state securities commission office or your local Better Business Bureau to see if the company or individual is properly licensed to do business or has any history of violating the law. Also check with friends or family members.

Be cautious when strangers contact you by cold phone calls, unannounced visits to your home, or contacts from mailing lists. Phone calls offering get-rich schemes can be the signal of a scam.

Question extraordinary returns on your money in short time periods. Avoid high pressure techniques that require hurried money commitments because tomorrow will be too late.

Ask the seller to give you written information about the investment, including the prospectus or offering circular and financial statement. Avoid investments where the seller has little or no written information about the company or past performance. Read the materials carefully or get help reading them before you sign a purchase order to pay for an investment. Ask questions. Check with experts. If in doubt, wait. If something seems fishy or if your questions are not satisfactorily answered, don't commit your money.

The pyramid in Figure 3-1 reflects the risk/return of various investments. Investments at the bottom of the pyramid are more liquid, conservative, and generally yield less return. Investments near the top of the pyramid have more potential to grow. But they also have a greater chance for loss of principal.

Table 3-11

Managing Your Investment Risks

List all of your investments on a piece of paper. Divide your investments into three categories - real estate, stock, and interest-earning investments. What is the dollar amount you have invested in:

a. real estate ______________

b. stock _____________

c. interest-earning accounts _____________

d. total dollar amount _____________

(a+b+c)

What is the percent of the total dollar amount in:

a. real estate _____________

b. stock _____________

c. interest-earning accounts _____________

d. total percent _____________

Evaluate how your investments are allocated every six months. Set target percentages and try to maintain them.

Here are some examples of how assets might be allocated to diversify risk.

A. Method One

	Young	**Middle Age**		**Near/In Retirement**	
Interest-earning	30%	40%	50%	60%	50%
Stocks	40%	60%	50%	40%	30%
Real estate	30%				20%

Source: Pond, 1992, 9-11

B. Method Two

Subtract your age from 100. Whatever the result, put that percentage of your portfolio into stocks.

A 20 year old might have 80% in stocks and 20% in interest-earning investments. A 60-year-old might have 40% in stocks and 60% in interest earning investments such as bonds and money market instruments.

C Method Three

Years To Retire	Cash	Bonds	Stocks
35	10%	15%	75%
25	15%	20%	65%
15	15%	35%	50%
5	20%	40%	40%

Source: State of Georgia, 1995, 5.

D. Method Four

Younger Investors 20's - 30's	Middle Years 40's - 50's	Retirees 60's - plus
20% Small-company stocks 15% Growth stocks 15% Value stocks 10% Income stocks 20% Foreign stocks 5% Money-market securities or short-term bonds 5% Intermediate-term bonds 5% Mortgage or long-term bonds 5% Foreign bonds	15% Small-company stocks 10% Growth stocks 15% Value stocks 10% Income stocks 15% Foreign stocks 5% Money-market securities or short-term bonds 10% Intermediate-term bonds 5% Mortgage or long-term bonds 5% Foreign bonds	5% Small-company stocks 5% Growth stocks 15% Value stocks 10% Income stocks 5% Foreign stocks 10% Money-market securities or short-term bonds 20% Intermediate-term bonds 25% Mortgage or long-term bonds 5% Foreign bonds

Source: Wall Street Journal, 6/11/93, C/C19.

Investment Risks

How much return you expect to receive from your investment is related to its total risk. Investments are subject to several kinds of risks:

Market risk

Market risks affect several types of investments at the same time. A company may be doing well but its stock falls because stock prices as a whole are falling. Stock prices in general tend to fall when interest rates rise and rise when interest rates fall. Prices may change also due to a decline in business conditions, a change in investor psychology, or a sudden and unexpected event such as an oil embargo. Market risks are associated with changes in market prices regardless of the merits of the particular investment.

Interest rate risk

Interest rate risks are caused by changes in the general level of interest rates. Investments that offer a fixed periodic return are affected most by interest rate fluctuations. A money market fund, which is a variable-interest investment, rises when interest rates are up and falls when interest rates are down. If you lock in CDs when interest rates are high, you will earn that rate until your CD matures. If interest rates drop, the CD you locked in can earn above market rates. However, if interest rates are low and you lock in a low interest rate, you won't be able to take advantage of rising interest rates until your CD matures.

Purchasing power risk

Purchasing power risk is the risk associated with changes in price levels within the economy. It refers to how inflation or deflation impacts an investment. *Inflation* causes loss of purchasing power due to price increases of goods and services. *Deflation* occurs due to the falling price level of goods and services. Let's say inflation is 13.3% one year. If you hid $200 under a mattress that year, you lost 13.3%. Your $200 was only worth $176.52 in purchasing power by the end of the year. If you had placed that $200 in a savings account earning 5%, you lost only 8.3% that year (13.3% - 5% = 8.3%). So your $200 was worth $184.67. If you had the same savings when inflation was 3.8% per year, you earned 1.2% (5% - 3.8% = 1.2%). You actually gained more ground when inflation rates were lower. Don't forget taxes. If you are single and earned $25,000, you would be in the 15% marginal tax bracket. This means you lose 15% of your 1.2% earnings. Your actual effective rate was only about .9% (1.2 x .15 = .22; 1.2 - .22 = .9%). Inflation tends to cause interest rates to rise and the price of stocks and bonds to decline. There is nothing you can do to stop inflation but you can select investments that outpace inflation. In Figure 4-1, investments at the bottom of the pyramid are more subject to purchasing power risk.

Business risk

Business risk is the risk associated with events that affect one company or industry. This risk can be caused by competition from other sources. The auto industry losing some of its markets to foreign auto manufacturers is an example. Investments in like types of businesses have similar business risks. However, similar businesses can have differing levels of profitability due to differences in management, operating costs and markets.

Financial risk

Financial risk is the risk related to the way debt and equity are used to finance a business. The more debt the business has, the greater the financial risk.

Use as Collateral

Will you ever need to use your investment as security for a loan? If so, this will influence where you place your money. Check to see if the investment can be used as collateral to secure a loan.

Management

How will your money be supervised? Does the company have a "track record" to show that your money is being managed wisely? Will you receive monthly, quarterly, or annual account statements? Will you have periodic visits with your financial adviser?

Time to Spend on Investments

Every investment requires time. Some require more time than others. A CD sits quietly in your safe deposit box until it matures. Rental property requires daily attention. How much time can you realistically devote to your investments? If you have little or no time, then you may want to choose an investment adviser. An investment adviser can help you select investments to reach your financial goals.

Knowledge of Investments

As a beginning investor, consider placing your savings in investments you know something about. If you are starting at the beginning, do some research to find out what's best for you. Investigate how the investment has performed. Even if you decide to work with an investment adviser, you need to know enough to communicate. A good adviser takes the time to help you understand the purpose of the recommended investment and answers your questions.

Before buying securities, learn about the company that is offering them. You can get this information from annual reports, prospectuses, SEC 10-K reports, investment information services publications, brokerage reports, newsletters and investment periodicals. An annual report summarizes a public corporation's financial activities for a year. A prospectus discloses facts such as the experience of management, financial status, anticipated legal matters, and potential risks of investing in the corporation. An SEC 10-K report is an annual report required of companies registered with the Securities and Exchange Commission (SEC) that provides updated financial details on corporate activities.

Investment information services provide information about the past performance of companies. The best known are Standard & Poor's and Value Line.

Some brokerage firms produce research reports to analyze financial products for price appreciation and/or above-average income. Some reports contain specific information (buy, sell, or hold). Others are purely informational.

Investment advisory newsletters provide recommendations for buying and selling specific securities, for an annual subscription fee. Investment periodicals also provide securities information. The Wall Street Journal provides daily information on business and securities prices. Barron's provides weekly data. Business Week, Forbes, U.S. News and World Report, and Money also provide information on general financial news.

Stage of Life Cycle

Your stage of life will also influence your investment decisions. Young people have a lifetime ahead of them to accumulate money. Therefore they can take more risks when investing. They have more time to recover from losses. On the other hand, someone in retirement will probably want to place their money where it is safe. Table 3-12 lists the various stages of the life cycle, major financial needs, tasks common to that stage, and some types of investments one in that stage might choose to pursue.

Summary

Which savings or investment alternative is best for you? That depends on your personal investment philosophy. When choosing where to place your money, you will want to consider safety of principal, liquidity, marketability, return on your money, how you will receive your yield, cost of investing, size of investment unit, how you will be taxed, amount of risk you are willing to take, type of investment risk, use as collateral, management, time to spend on investments, knowledge of investments, and stage of life cycle.

To choose savings and investment products that are best for you,

- define the criteria you will use to evaluate financial products
- understand how to use the criteria to choose the appropriate mix of financial products for you
- evaluate financial products using the criteria that are a good fit for you
- identify personal risk tolerance level to select financial products that match it
- know the factors that affect investment return including earnings, fees, and taxes to select the best financial product for you.

Table 3-12

Stage of Life Cycle	Financial Tasks	Investment Objectives
1. *Young adulthood:* Ages 22 to 30 train for career establish household establish financial identity attain financial independence	- make a spending plan - develop financial recordkeeping system - manage increased need for credit - expand career goals - provide for child bearing and rearing costs - provide for expanding housing needs - purchase risk coverage - build educational fund establish a savings and investment program - develop estate plan	Set aside fixed percentage of net income regularly Pursue capital growth rather than current income Risk level: moderate to substantial risk investment
2. *Estate building* Ages: 30 to 45 growing family growing career growing income	- provide greater income for expanding needs - upgrade career training - continue to build educational fund - maximize risk protection for income earner(s) - build a retirement fund - minimize tax burden - analyze estate plan and adjust as needed	Risk Level: Take less moderate risks with investments than stage 1 Look for tax-deferred, tax-exempt investments Choose financial advisers
3. *Financial maturity:* Ages 45 to 67 Income generally increases and peaks Children leave home More money to save	- provide higher education/training for children - maximize investments - evaluate and update retirement plan - care for aging parents - minimize tax burden - analyze estate plan and adjust as needed	Risk Level: Look for tax-deferred, tax-exempt investments
4. *Retirement:* Ages 67 and up Paychecks end Live on retirement income	- maintain comfortable level of living - evaluate and adjust insurance coverage for increasing risks - finalize estate planning	Risk Level: Preserve capital; maximize safety Need maximum current income and liquidity Minimize taxes

Worksheet 3-1
INVESTMENT EVALUATOR

Investment Alternatives							
Criteria							
Objective:							
Safety of principal							
Liquidity/marketability							
Return on money current income capital growth income and growth							
Charges commission/sales charge initial exit annual expenses							
Size of investment unit minimum maximum frequency of contribution							
Tax consequences before or after tax dollars ordinary income tax deferred tax-exempt capital gains							
Risk barest minimum small amount moderate substantial (increased risk of loss of principal)							
Use as collateral							
Time to spend investing							
Stage of life cycle							