PERSONAL FINANCE

Military Families Learning Network

Investing Basics & Beyond

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MILITARY FAMILIES LEARNING NETWORK

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and Cooperative Extension professionals to research
and to each other through engaging online learning opportunities

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Today's Presenter

Dr. Barbara O'Neill

- Extension Specialist and Distinguished Professor at Rutgers University
- Creator of five different savings challenges that encourage people to save

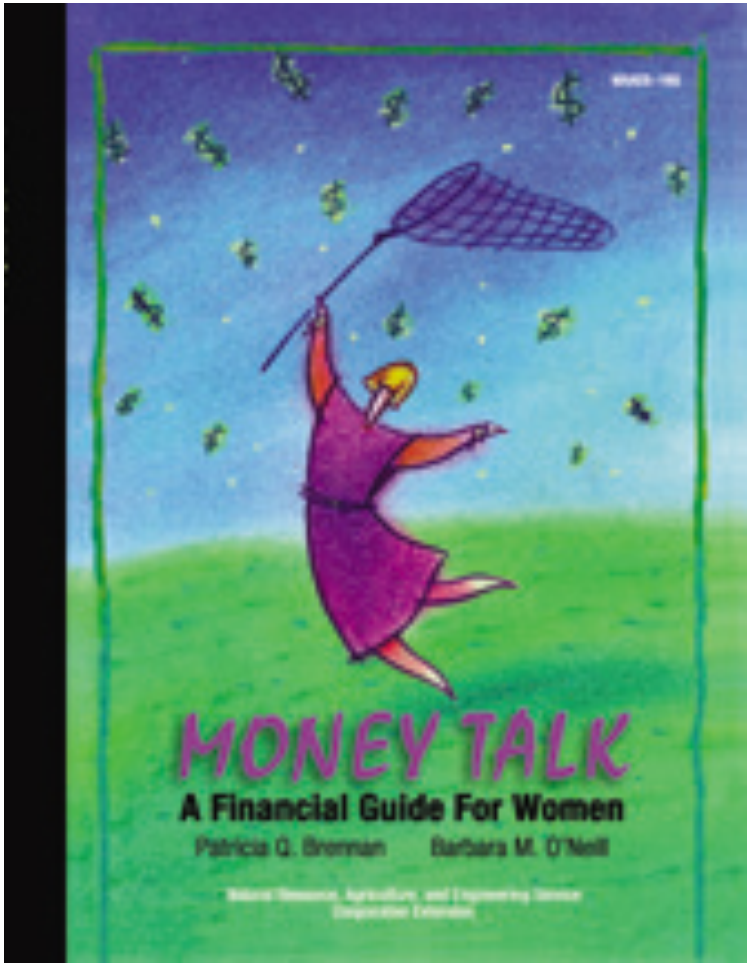
Previous MFLNPF Investing Webinars

- Building Wealth with Saving, Investing, and Windfalls (6/16): https://learn.extension.org/events/2593
- The Ins and Outs of Target Date Funds (5/15): https://learn.extension.org/events/2030
- Investing With Small Dollar Amounts (3/15): https://learn.extension.org/events/1717
- Developing a Personal Asset Allocation Strategy (1/15): https://learn.extension.org/events/1715
- How to Read a Mutual Fund Prospectus (10/14): https://learn.extension.org/events/1674
- Investing for Your Future Part 2 (3/13): https://learn.extension.org/events/932
- Investing for Your Future Part 1 (3/13): https://learn.extension.org/events/931

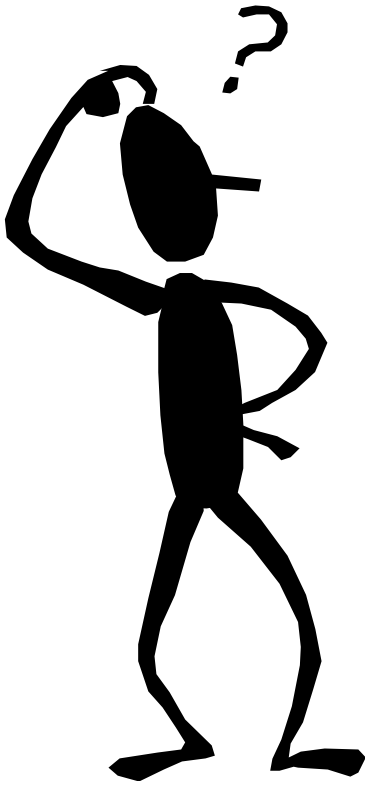
Webinar Objectives

- Increase knowledge of basic investment principles
- Increase knowledge about specific investment products
- Increase knowledge about building an investment portfolio
- Increase knowledge about investor education resources

Webinar Resource



Question #1: Why is it important to be an investor?

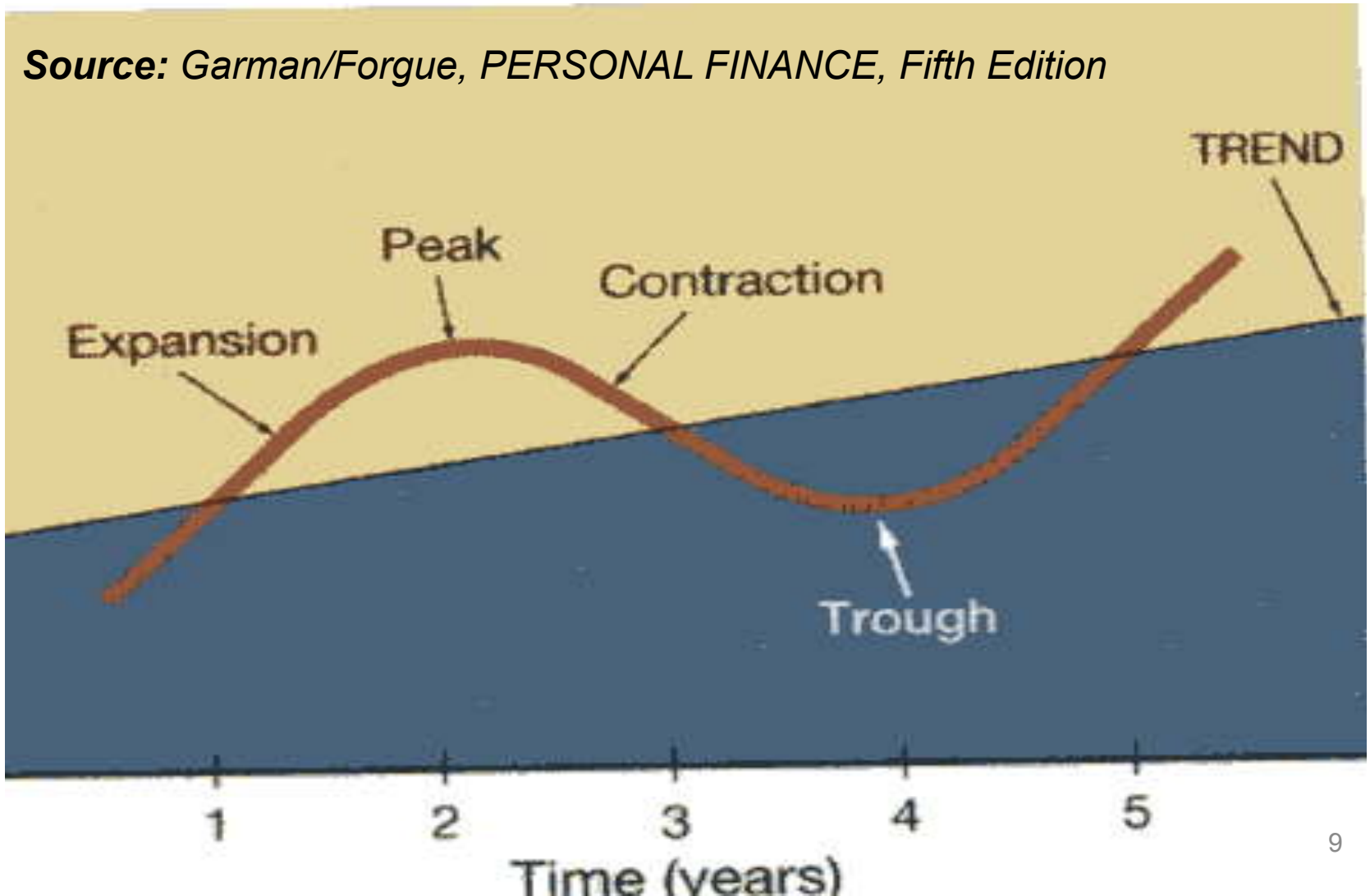


Why People Invest

- To achieve financial goals (e.g., new car, home down payment, child's education)
- To increase current income
- To achieve financial independence
- To have funds available during retirement years

Invest for Long-Term Goals

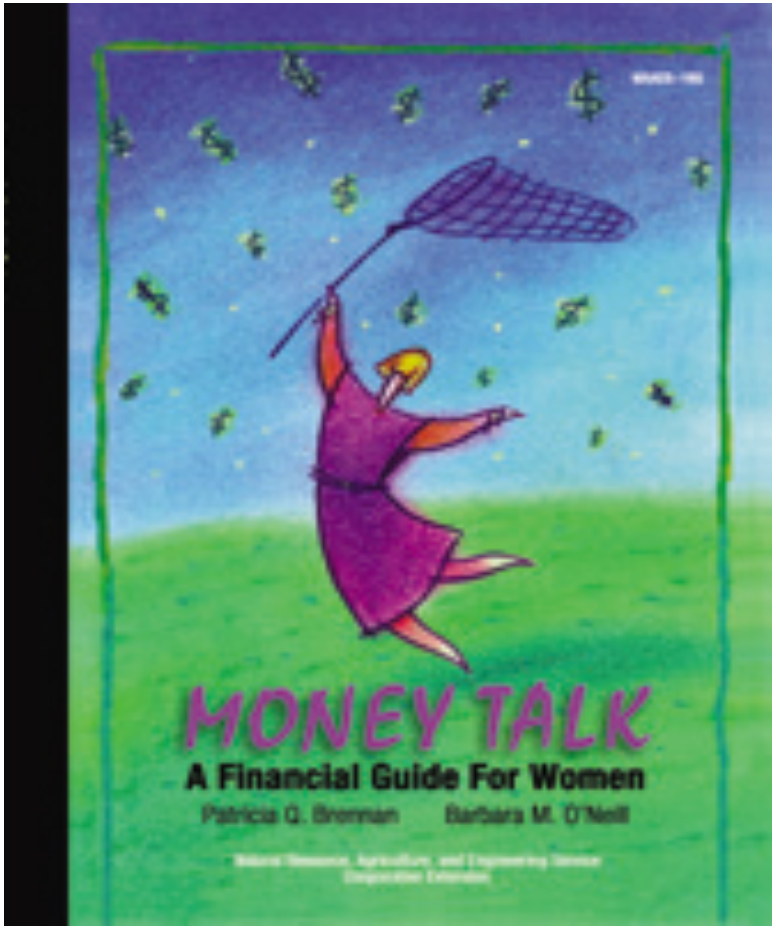
http://njaes.rutgers.edu/money/pdfs/goalsettingworksheet.pdf



Investment Pre-requisites

- Adequate emergency fund
- Adequate insurance
- No or low consumer debt balance
- Written financial SMART goals
- An “investor’s mindset”

Investing Basics



SESSION III

Investing Basics

Mary had a little cash
In fives and tens and such
And every dollar Mary saved
Made her retirement fund more flush.

What will be covered in Session III

Investment Lessons

1. Setting Goals and Finding Solutions
2. Understanding and Accepting Risk
3. Investment Choices—Stocks, Bonds, and Mutual Funds
4. What Are Stocks and Why Should You Own Them?
5. What Are Bonds and Why Should You Own Them?
6. What Are Mutual Funds and Why Should You Own Them?

SMART Investment Goals

$MART Financial goals are:

$ -- Specific

M -- Measurable

A -- Attainable

R -- Realistic

T -- Time-related

- Short-term -- 0-3 years
- Intermediate -- 3-10 years
- Long-term -- 10+ years

EXERCISE III-1

$MART Financial Goal Setting

$ = Specific; M = Measurable; A = Attainable; R = Realistic; and T =Time period.

Directions: $MART goals need to be written down on paper to reinforce their importance. Use the worksheet below to set some short- and long-term financial goals that follow the $MART goal format. To keep the calculations simple, a 0% interest rate and inflation rate are assumed and taxes are excluded. A sample goal for each category is provided.

To get where you want to go in life, decide in advance how you will get there. Goals are signposts on the highway of the future. They serve as your road map to personal, career, and financial success.

By keeping specific goals in view, you can direct your energies toward achieving your goals.

Short-term goals (less than 3 years)

Goal	Total cost	Target date	Amount to save/month
House down payment	$15,000	3 years	$417.00*

* $15,000 ÷ 36 months = $417.00/month

Common Investment Goals

Match your investments with financial goals

- Growth
- Income
- Tax savings
- Growth and income
- Preservation of capital

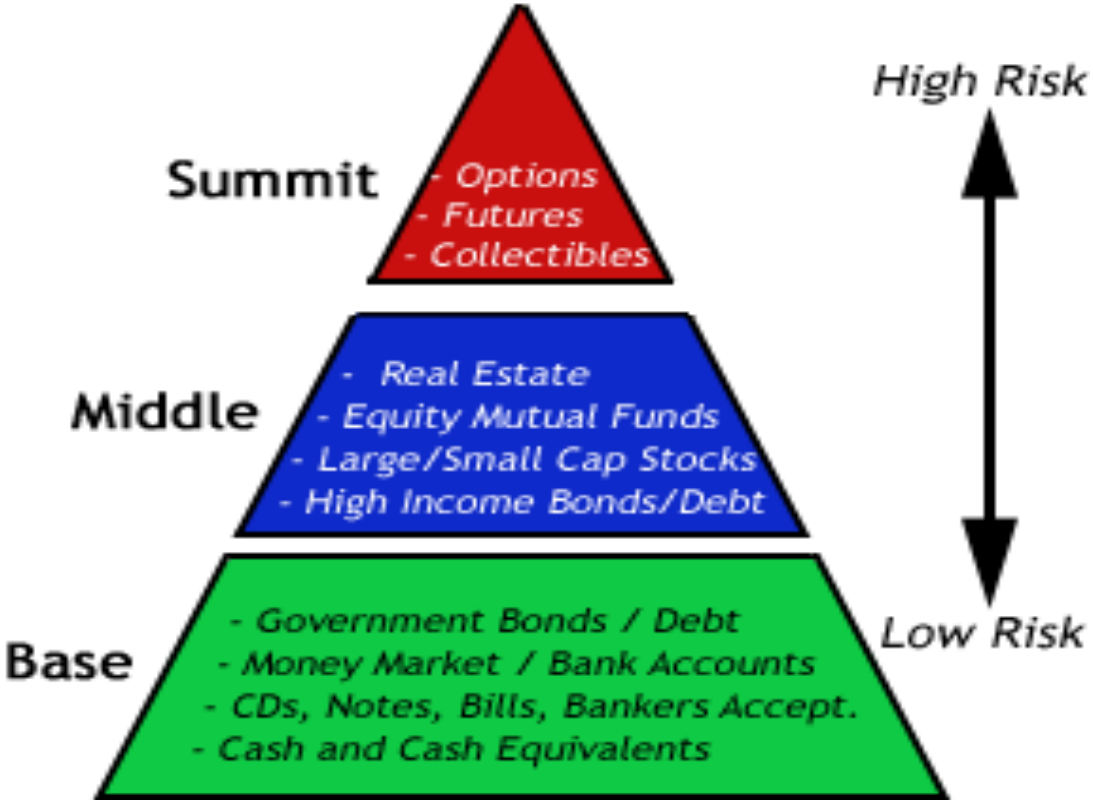
Intermediate-term goals (3–10 years)

Goal	Total cost	Target date	Amount to save/month
New car	$20,000	5 years	$333.33

Long-term goals (longer than 10 years)

Goal	Total cost	Target date	Amount to save/month
College tuition	$75,000	15 years	$417.00*

Investment Risk Pyramid



Source: Investopedia: http://www.investopedia.com/articles/basics/03/050203.asp

Understanding and Accepting Investment Risk

All investments involve some risk:

- **Market risk** -- Security prices fall as a result of an overall stock market downturn
- **Interest rate risk** -- Inverse relationship between investment prices and interest rates
- **Inflation risk** -- Loss of purchasing power
- **Business risk** -- Affects only one company/industry
- **Reinvestment risk** -- Having to invest at lower rates

Activity: Risk Tolerance Quiz

Exhibit **11–2** A Quick Test to Measure Investment Risk

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

1. You're the winner on a TV game show. Which prize would you choose?
   - ☐ $2,000 in cash (1 point).
   - ☐ A 50 percent chance to win $4,000 (3 points).
   - ☐ A 20 percent chance to win $10,000 (5 points).
   - ☐ A 2 percent chance to win $100,000 (9 points).
2. You're down $500 in a poker game. How much more would you be willing to put up to win the $500 back?
   - ☐ More than $500 (8 points).
   - ☐ $500 (6 points).
   - ☐ $250 (4 points).
   - ☐ $100 (2 points).
   - ☐ Nothing—you'll cut your losses now (1 point).
3. A month after you invest in a stock, it suddenly goes up 15 percent. With no further information, what would you do?
   - ☐ Hold it, hoping for further gains (3 points).
   - ☐ Sell it and take your gains (1 point).
   - ☐ Buy more—it will probably go higher (4 points).
4. Your investment suddenly goes down 15 percent one month after you invest. Its fundamentals still look good. What would you do?
   - ☐ Buy more. If it looked good at the original price, it looks even better now (4 points).
   - ☐ Hold on and wait for it to come back (3 points).
   - ☐ Sell it to avoid losing even more (1 point).
5. You're a key employee in a start-up company. You can choose one of two ways to take your year-end bonus. Which would you pick?
   - ☐ $1,500 in cash (1 point).
   - ☐ Company stock options that could bring you $15,000 next year if the company succeeds, but will be worthless if it fails (5 points).

Your total score : _____

Scoring

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

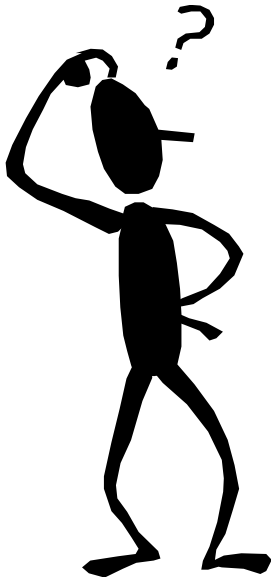
19–30 points You are a less conservative investor. You are willing to take more chances in pursuit of greater returns. The higher your score, the bolder you are. You may want to consider bonds with higher yields and lower credit ratings, the stocks of newer companies, real estate investments that use mortgage debt, or aggressive mutual funds.

A primer on the ABCs of investing is available from T. Rowe Price, 100 E. Pratt St., Baltimore, MD 21202 (800-638-5660).

Source: Focus on Personal Finance (Kapoor, Dlabay, & Hughes)

Question #2: What kind of investor are you? Your clients?

- Conservative
- Moderate
- Aggressive



What Kind of Investor Are You?

By understanding and coming to grips with your risk tolerance, you can eliminate or limit any type of investment that doesn't fit your criteria. Check those statements that apply.

You are a conservative investor if:

- ☐ You want your money safe at all times, and you don't want to lose any of it.
- ☐ Any decline in the value of your investment concerns you.
- ☐ You are uncomfortable with price volatility.
- ☐ You want to minimize losses and fluctuation in the value of your investments.
- ☐ You would invest in something safe that offers a fixed rate of return.
- ☐ You are willing to give up higher rates of return to keep most of your principal intact.
- ☐ You prefer investments that offer income opportunities without much exposure to principal loss.

You are a moderate investor if:

- ☐ You want your investment return to beat inflation by at least 2%.
- ☐ You select investments that have a moderate amount of volatility yet offer the opportunity to earn a higher rate of return than CDs or government bonds.
- ☐ Although a decline in the value of your investments is a concern, you can accept temporary market volatility in return for growth opportunities.
- ☐ You would like to moderately increase the value of your investments with limited exposure to risk.
- ☐ You want a balanced investment mix and are willing to tolerate some short-term fluctuation in value.

You are an aggressive investor if:

- ☐ You like to pursue substantial appreciation opportunities, even though it puts your capital at high risk.
- ☐ Temporary market fluctuations do not concern you because maximum appreciation is your primary long-term goal.
- ☐ You expect a return greater than the S&P 500 Index from your investments.
- ☐ You are financially able to accept lower liquidity in your investment portfolio.
- ☐ You can take calculated risks to ensure a potential for the highest return over time.
- ☐ You have the conviction necessary to hold on to your investment during those years when it could drop in value by 25% or more.

Conclusion: Based on my needs, concerns, and risk tolerance,

I consider myself to be a(n) _____ investor.

Investment Characteristics

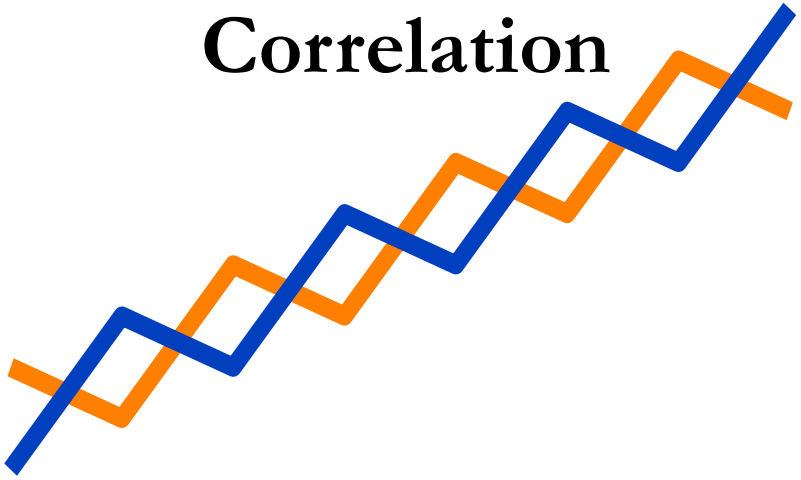
	FACTORS TO BE EVALUATED				
Type of Investment	Safety	Risk	Income	Growth	Liquidity
Common stock	Average	Average	Average	High	Average
Preferred stock	Average	Average	High	Average	Average
Corporate bonds	Average	Average	High	Low	Average
Government bonds	High	Low	Low	Low	High
Mutual funds	Average	Average	Average	Average	Average
Real estate	Average	Average	Average	Average	Low

Source: Focus on Personal Finance (Kapoor, Dlabay, & Hughes)

Investment Correlations

Positive Correlation

Negative Correlation



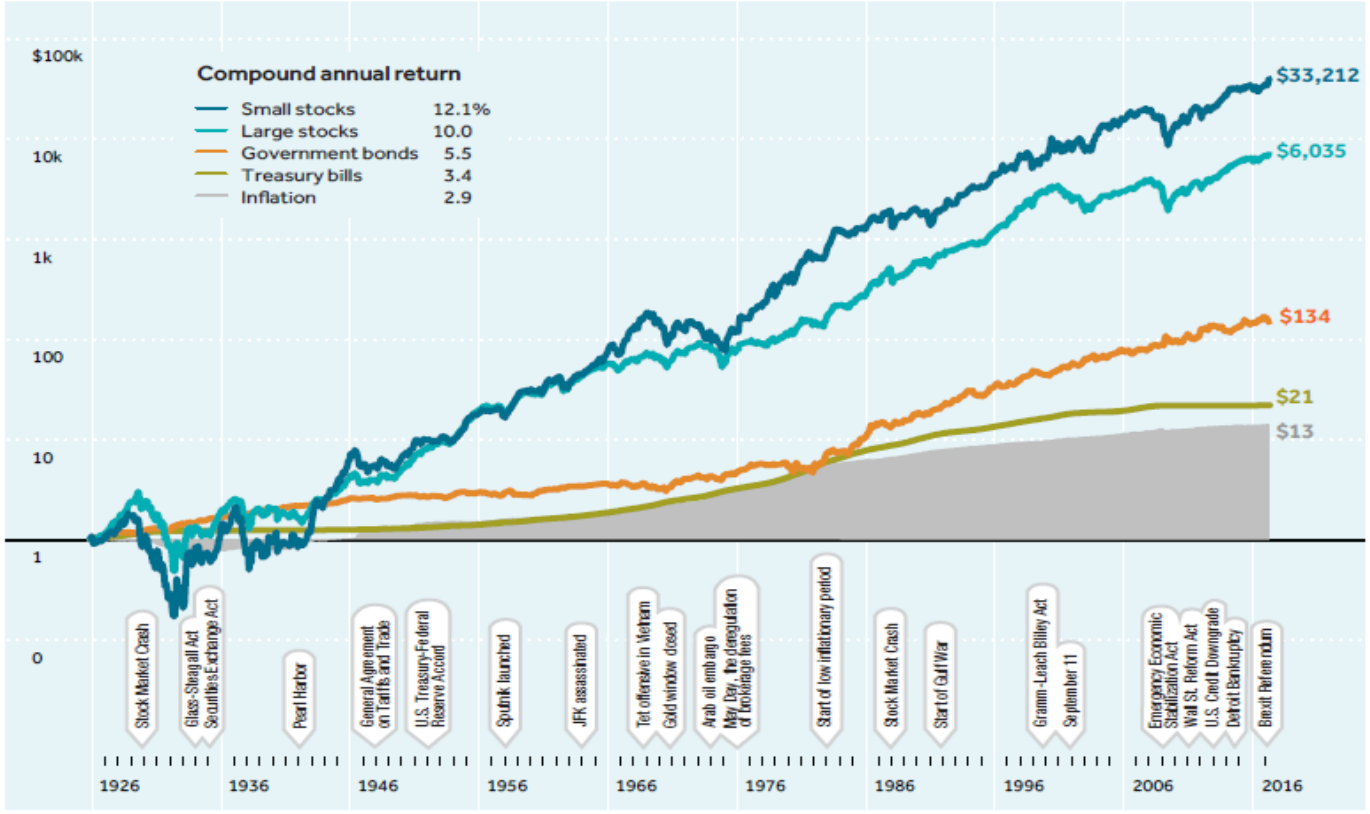
Correlation refers to how closely the returns of two distinct assets move relative to each other. Positive correlation implies a strong linear relationship, while negative correlation signifies weak one.

Historical Returns

Ibbotson® SBBI® Stocks, Bonds, Bills, and Inflation 1926–2016

Why invest?

If you have financial goals, such as a secure retirement or paying for a college education, investing makes sense. As you can see here in the growth of $1 over the past 91 years, small-cap stocks, large-cap stocks, government bonds, and Treasury bills should all have a place in a properly allocated long-term investment plan.



Past performance is no guarantee of future results.

Hypothetical value of $1 invested at the beginning of 1926. Assumes reinvestment of income and no transaction costs or taxes. This is for illustrative purposes only and not indicative of any investment. An investment cannot be made directly into an index.

Source: Morningstar, Inc.

Investment Choices: Loanership vs. Ownership

- **Loanership**
  - You lend your money to a company
  - You receive a pre-set interest rate
  - You receive your original principal back
- **Ownership**
  - You purchase part of all of an investment
  - Values fluctuate
  - Potential higher return

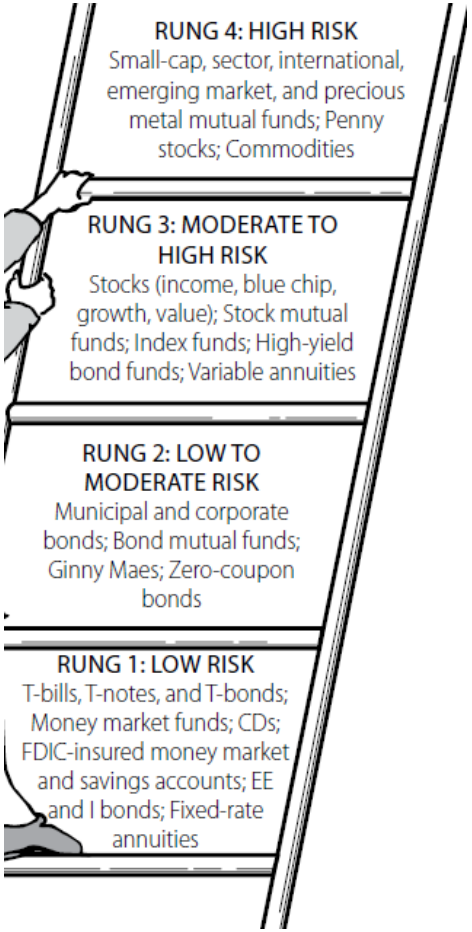
Investment Choices

TABLE III-2

What Returns Can You Expect from Your Investments?

Investor profile	Type of investments	Expected return before inflation and taxes (%)
Conservative (low risk)	Significant allocation to fixed income (bonds, money markets, CDs, and savings accounts)	2–8
Moderate (medium risk)	Significant allocation to equities (stocks and mutual funds)	8–11
Aggressive (high risk)	Significant allocation to equities, including foreign, small cap, and sector funds	10–15

Low Risk Investment Choices: Ladder Rung 1



Cash and Cash Equivalents

- Savings accounts
- Money market deposit accounts
- Money market mutual funds
- Certificates of deposit (CDs)

U.S. Treasury Securities

- EE bonds and I bonds
- Treasury bills, Treasury notes, and Treasury bonds

Fixed Annuities

The Impact of Inflation

- To beat inflation, investors must earn a higher after-tax return than the inflation rate

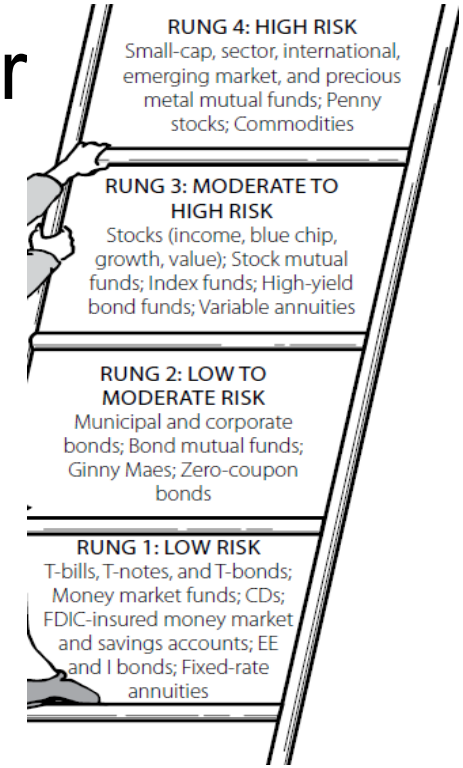
- **Real Rate of Return** – The return after subtracting the effects of both inflation and income taxes

Example:

10% return, **7.5%** after taxes (25% tax bracket), **4%** inflation, real rate of return of **3.5%** after taxes and inflation

Low-Moderate Risk Investment Choices: Ladder Rung 2

Individual bonds -- rated A or better



- Municipal bonds
- Corporate bonds
- Zero-coupon bonds
- Bond funds
- GNMAs (mortgage-backed securities)

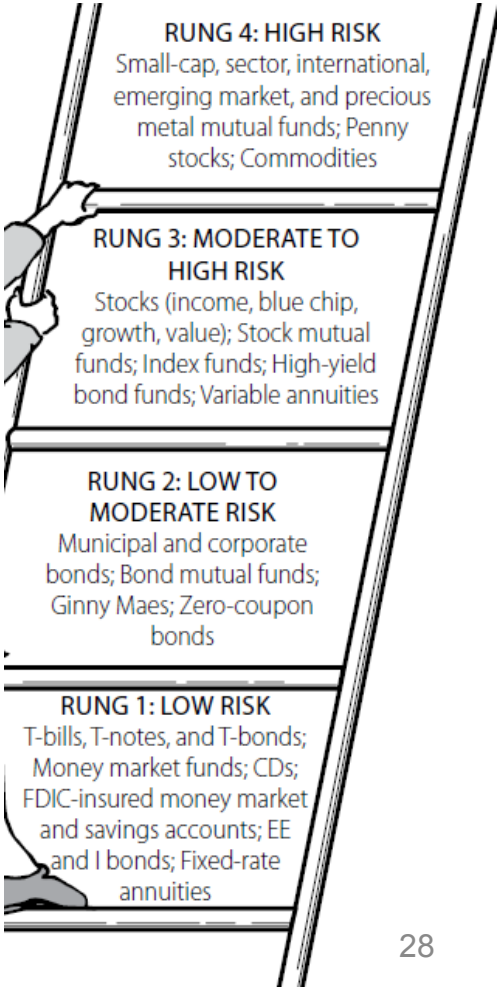
Moderate-High Risk Investments Choices: Ladder Rung 3

Stocks (a.k.a. equities)

- Blue chip stocks
- Growth stocks
- Value stocks

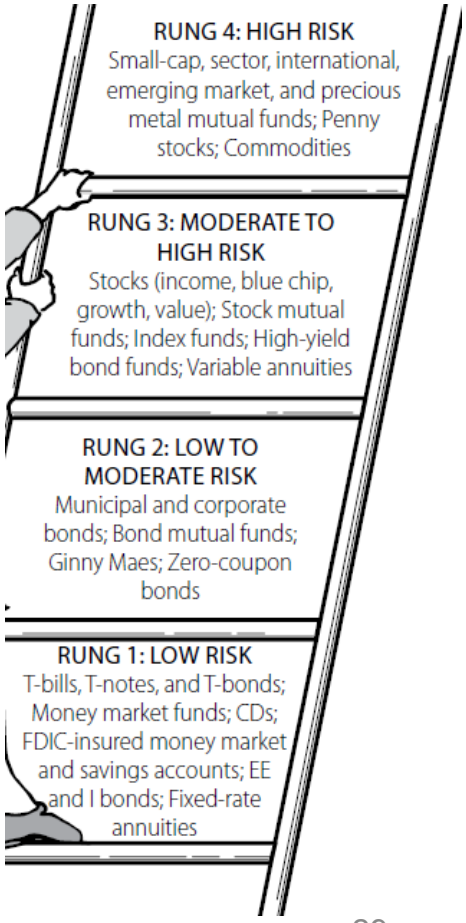
Stock mutual funds

Variable annuities



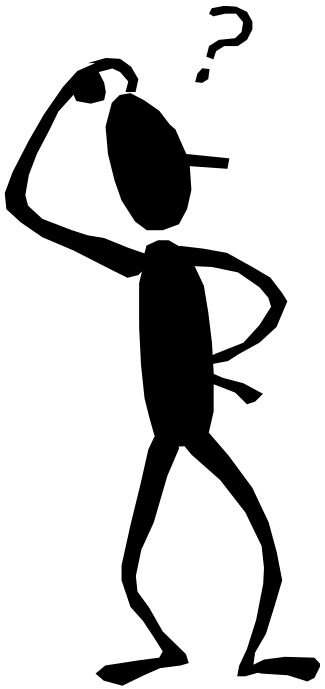
High Risk Investment Choices: Ladder Rung 4

- Small company stocks and mutual funds
- Sector funds
- Emerging market funds
- Gold and precious metal funds
- Penny stocks
- Commodities
- International stocks and mutual funds



Question #3:
How high up on the investing ladder do you want to go?

- Rung 1
- Rung 2
- Rung 3
- Rung 4



What Are Stocks? Why Own Them?

Stock is a security that represents a unit of ownership in a corporation

- Two types of stock:
  - Preferred: A cross between a stock and a bond (income oriented); no voting rights
  - Common: Voting rights and profit potential
- Two ways to make money owning stocks:
  - Price appreciation (capital gain)
  - Dividends

Classifications of Stock

- **Market Capitalization** ("Cap")
  - Share price x number of outstanding shares
- **Defensive and Cyclical**
  - **Cyclical Stocks** – Stock from a company whose profits are greatly influenced by changes in the economic business cycle.
  - **Countercyclical (or Defensive) Stocks** – Stock from a company that performs well even in an environment characterized by weak economic activity
- **Growth and Value**
  - **Value Stock-** Stock that is selling for < the true worth of company assets
  - **Growth Stock-** Stock with above-average earnings

Analyzing Stock Performance

Earnings Per Share (EPS)

Formula: Corporation's after-tax income divided by number of outstanding shares of common stock

- **Example:** $5,000,000/10,000,000 = $0.50
- EPS increase is generally a healthy sign

Analyzing Stock Performance

Price-Earnings Ratio (P/E Multiple)

Formula: Price per share of stock ÷ firm's earnings per share (EPS)

- **Example:** $10 price/0.50 EPS = a PE ratio of 20

•Tells how much investors are paying for a company's earning power

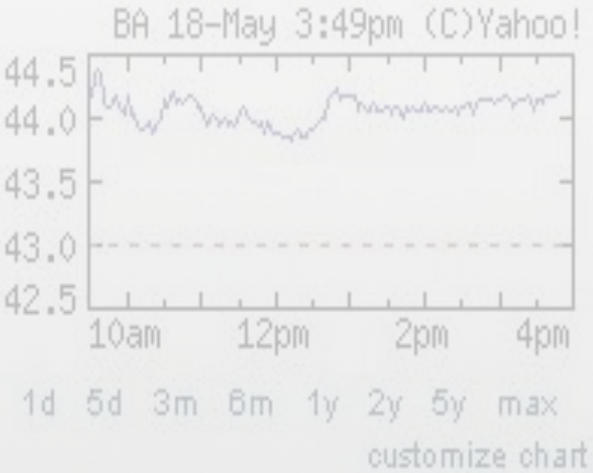
- P/E of 20 ➡ long-term average P/E
- Need to compare P/E of stock to firms in same industry

Common Stock Price Quotes

BOEING CO (NYSE: BA)

After Hours: 44.33 ↓ 0.04 (0.09%) 7:14PM ET

Last Trade:	44.37	Day's Range:	43.81 - 44.53
Trade Time:	4:00pm ET	52wk Range:	29.05 - 88.29
Change:	↑ 1.37 (3.19%)	Volume:	7,287,980
Prev Close:	43.00	Avg Vol (3m):	8,608,340
Open:	44.25	Market Cap:	32.22B
Bid:	N/A	P/E (ttm):	15.41
Ask:	N/A	EPS (ttm):	2.88
1y Target Est:	43.79	Div & Yield:	1.68 (3.90%)



Add BA to Your Portfolio
Set Alert for BA
Download Data
Download Annual Report
Add Quotes to Your Web Site

Last trade price = $44.37 **Annual dividend = $1.68**

P/E = 15.41 (44.37÷ 2.88) ➡ Earnings per share = $2.88

Time-Tested Stock Investing Strategies

- Buy what you know or get to know (research)
- Buy and hold quality stocks
- Diversify among industry sectors
- Dollar-cost average investment deposits
- Reinvest dividends and capital gains
- Don’t invest > 10% of portfolio in employer’s stock

Individual Stocks vs. Mutual Funds

Individual Securities

- Require time and expertise to analyze
- May have higher transaction costs
- Offer less probability of adequate diversification

Consider Individual Securities if:

- You have time and stock-picking expertise
- You have $20-30k to buy 10-20 stocks
- You are buying Treasury securities

What Are Bonds? Why Own Them?

Bonds are IOUs issued by corporations or government

- Issued usually at face value of $1,000
- Some pay interest semi-annually over term of bond (corporate and government bonds)
- Others pay at maturity (EE and zero-coupon bonds)
- Cushion a stock portfolio
- Address short- and intermediate-term goals

Individual Bonds vs. Bond Mutual Funds

- **Individual bonds offer:**
  - Semi-annual income stream
  - Return of principal at maturity
  - Ability to “ladder” (stagger) bond purchases

- **Bond mutual funds offer:**
  - Diversification- owns 100+ bonds
  - Dividends paid out periodically (e.g., monthly)
  - Low minimum to purchase
  - Liquidity

Bond Terminology

- **Face Value**
  - Dollar amount bondholder receives at bond's maturity date
  - Usually $1,000
- **Coupon rate**
  - Stated interest rate
  - Interest payments made every six months
  - **Example:** $1,000 x 5.8% = $58 (in two $29 payments)
- **Maturity Date** = date on which face value repaid; generally 1 to 30 years

Treasury Bills, Notes, and Bonds

Treasury Bills (T-Bills)

- $100 minimum with 4, 13, 26 and 52 weeks to maturity
- Sold at a discount

Treasury Notes

- $100 units and typical maturities of 2, 3, 5, 7, and 10 years
- Interest paid every six months; generally a higher interest rate than T-Bills

Treasury Bonds

- Issued in minimum units of $100 with 30 year maturity dates
- Interest rates generally higher than Treasury notes and bills
- Interest paid every six months

Treasury Inflation-Protected Securities (TIPS)

- Sold in minimum units of $100 with 5, 10 or 20 year maturities
- Principal changes with inflation (measured by CPI)
- Pays interest twice a year at a fixed rate

State and Local Government Securities: Municipal Bonds

- Issued by a state or local government
  - Cities, counties, school districts, special taxing districts
  - Funds used for ongoing costs and to build major projects
- **General Obligation Bonds**
  - Backed by the taxing authority of issuing state/local government
- **Revenue Bonds**
  - Repaid from money generated by project that funds finance (toll bridge)
- Interest exempt from federal taxes (reciprocal immunity)
  - Capital gains may NOT be tax exempt
  - Usually exempt from state and local taxes in state where issued
  - Lower rate of return than on taxable bonds

Corporate Bonds

- A corporation's written pledge to repay money with interest
- Considered safer than company stocks

Credit Quality Ratings and What They Mean

Moody's	Standard & Poor's	Fitch	Interpretation
Aaa	AAA	AAA	Outstanding quality. If everything that can go wrong goes wrong, the bond issuer can still service debt.
AA	AA	AA	Very high quality by all standards.
A	A	A	Investment grade; good quality.
Baa	BBB	BBB	Lowest investment-grade rating; satisfactory, but needs to be monitored.
Ba	BB	BB	Somewhat speculative; low grade.
B	B	B	Very speculative.
Caa	CCC	CCC	Even more speculative. Substantial risk.
Ca	CC	CC	Widely speculative. May be in default.
C	C	C	In default. Junk. No interest being paid or bankruptcy petition filed.
	D	D	In default

Adapted with permission from: Thau, A. (2000). *The Bond Book*. McGraw-Hill Trade.

Additional source: www.InvestinginBonds.com.

Premiums and Discounts

- When a bond is issued, it is sold in one of 3 ways:
  - At its face value
  - At a discount below its face value
  - At a premium above its face value
- Interest rate risk affects bond value if sold before maturity

Approximate Bond Value Formula

5.875% interest on **$1,000** bond = $58.75

- New bonds pay 5% (decrease in coupon rate)
- $\frac{\text{Dollar amount of interest}}{\text{Comparable interest rate}} = \frac{\$58.75}{5\% \ (.05)} = \mathbf{\$1{,}175}$

Bond worth **more** than face value because it pays interest rate **higher** than current market rate

- New bonds pay 6.5% (increase in coupon rate)
- $\frac{\text{Dollar amount of interest}}{\text{Comparable interest rate}} = \frac{\$58.75}{6.5\% \ (.065)} = \mathbf{\$903.85}$

Bond worth **less** than face value because it pays interest rate **lower** than current market rate

Taxable Equivalent Yield Formula

Use to compare the return on tax-exempt and taxable bonds

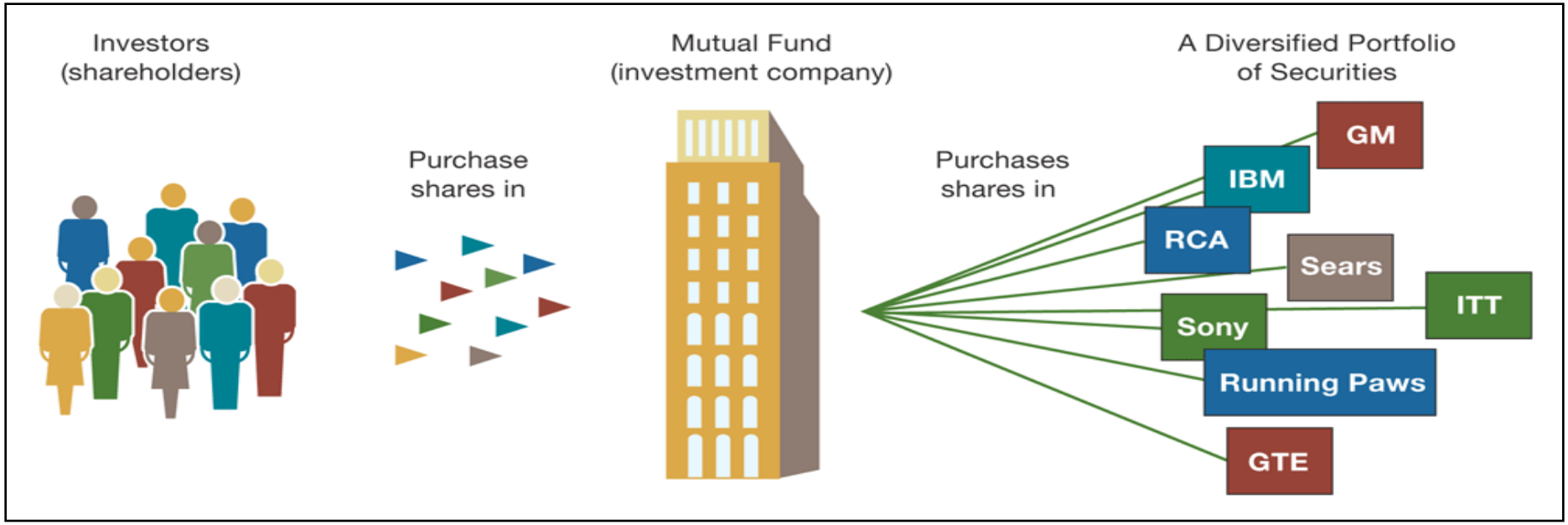
$$\text{Taxable Equivalent Yield} = \frac{\text{Tax - exempt yield}}{1 - \text{Your tax rate}}$$

Example:

$$\text{Taxable Equivalent Yield} = \frac{.05}{1 - .28} = .0694 = 6.94\%$$

What Are Mutual Funds? Why Own Them?

- Portfolio of stocks, bonds, and/or other securities
  - Collectively owned by many investors
  - Managed by professional investment company



Source: Personal Finance (Garman & Forgue)

Mutual Fund Advantages

- Full time professional money management
- Reduced risk through diversification
- Low minimum to get started and reinvest
- Ready access to your money (liquidity)
  - Shares issued and redeemed on demand
- Automatic investment and withdrawal plans
- Monitoring performance is easy

Mutual Fund Disadvantages

- If broad market drops, so goes a fund
- No guaranteed rate of return
- Unwanted taxable distributions
- High fund expenses can erode returns

Expense ratio. The percentage of fund assets deducted for management and operating expenses.
"No-load" funds. Require no up-front fees to purchase shares and have no marketing fees.
"Low-load" funds. Carry a sales commission of 1–3% of the amount invested.
"Load" funds. Carry a sales commission of up to 8.5% of the amount invested.

How Mutual Fund Investors Make Money

Income Dividends

- Earnings paid from dividend and interest income
- Taxed as ordinary income

Capital Gains Distributions

- Distributions when **the fund** buys and sells securities
- Taxed as a capital gain

Combination = Total Return

Capital Gains (or Losses)

- Capital gains (or losses) when **fund investors** sell shares at a price different than price you originally paid
- Taxed as short- or long-term gains (or losses)

Net Asset Value

NAV is the price that investors buy shares for and a fund pays per share when investors sell shares

$$\frac{\text{Value of fund shares at market closing}}{\text{Number of shares}} = \text{NAV}$$

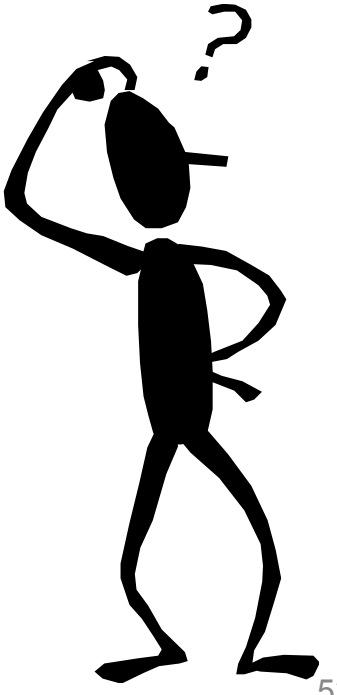
Example: $\frac{\$52{,}500{,}000}{3{,}500{,}000} = \$15$ per share

Dollar-Cost Averaging

Dollar-Cost-Averaging Illustration

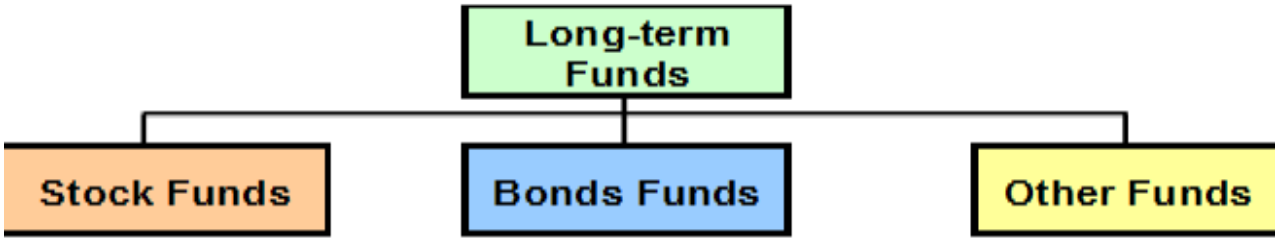
Month	Regular investment	Share price	Shares acquired
1	$100	$10.00	10.0
2	100	7.50	13.3
3	100	5.00	20.0
4	100	7.50	13.3
5	100	10.00	10.0
Total	$500	$40.00	66.6
Your average share cost: $500 ÷ 66.6 = $7.50			

Question #4:
Do you practice dollar-cost averaging?
If so, how?



General Categories and Objectives of Mutual Funds

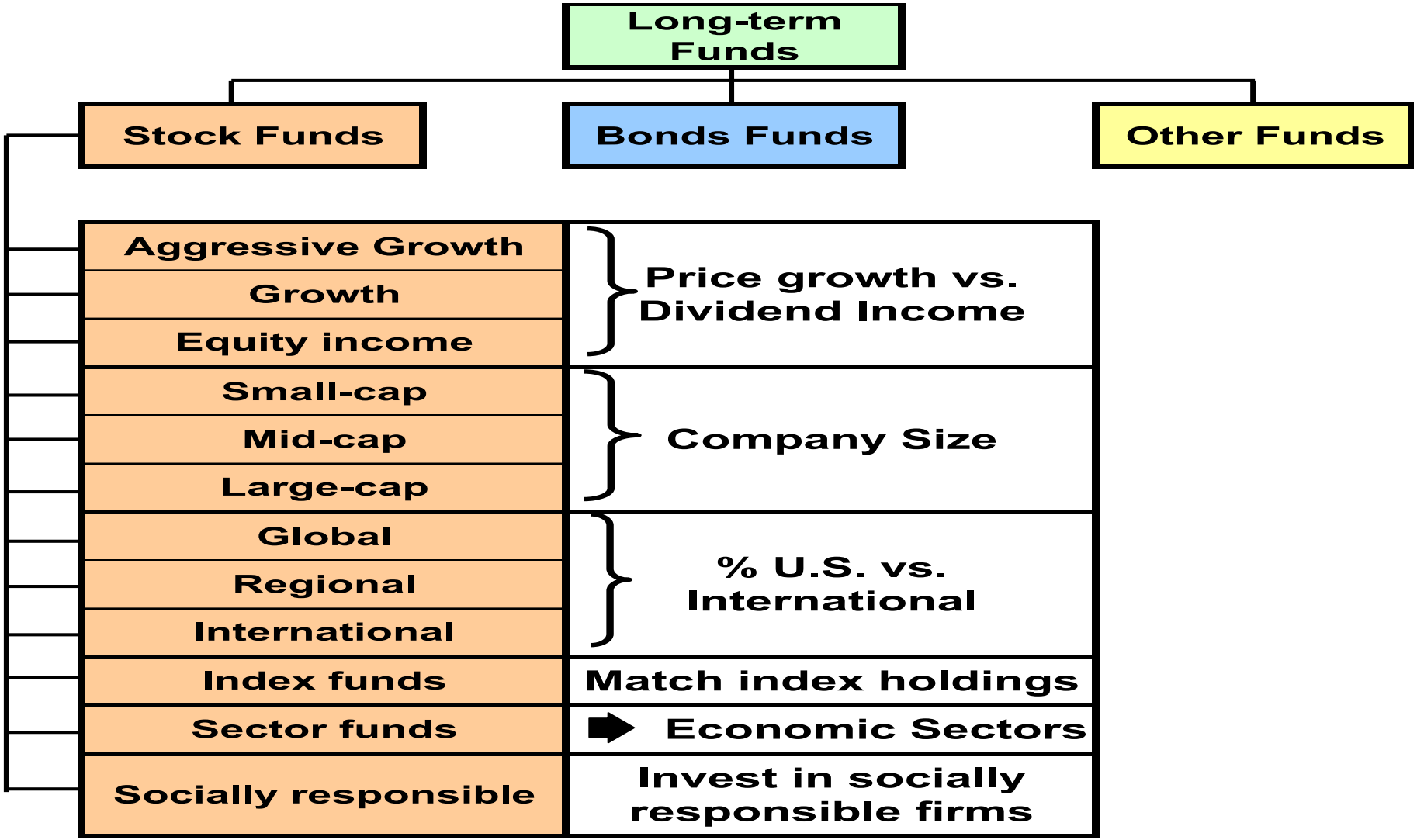
- Stock funds
- Bond funds
- Other funds



Every fund fits into one of four investment objectives:

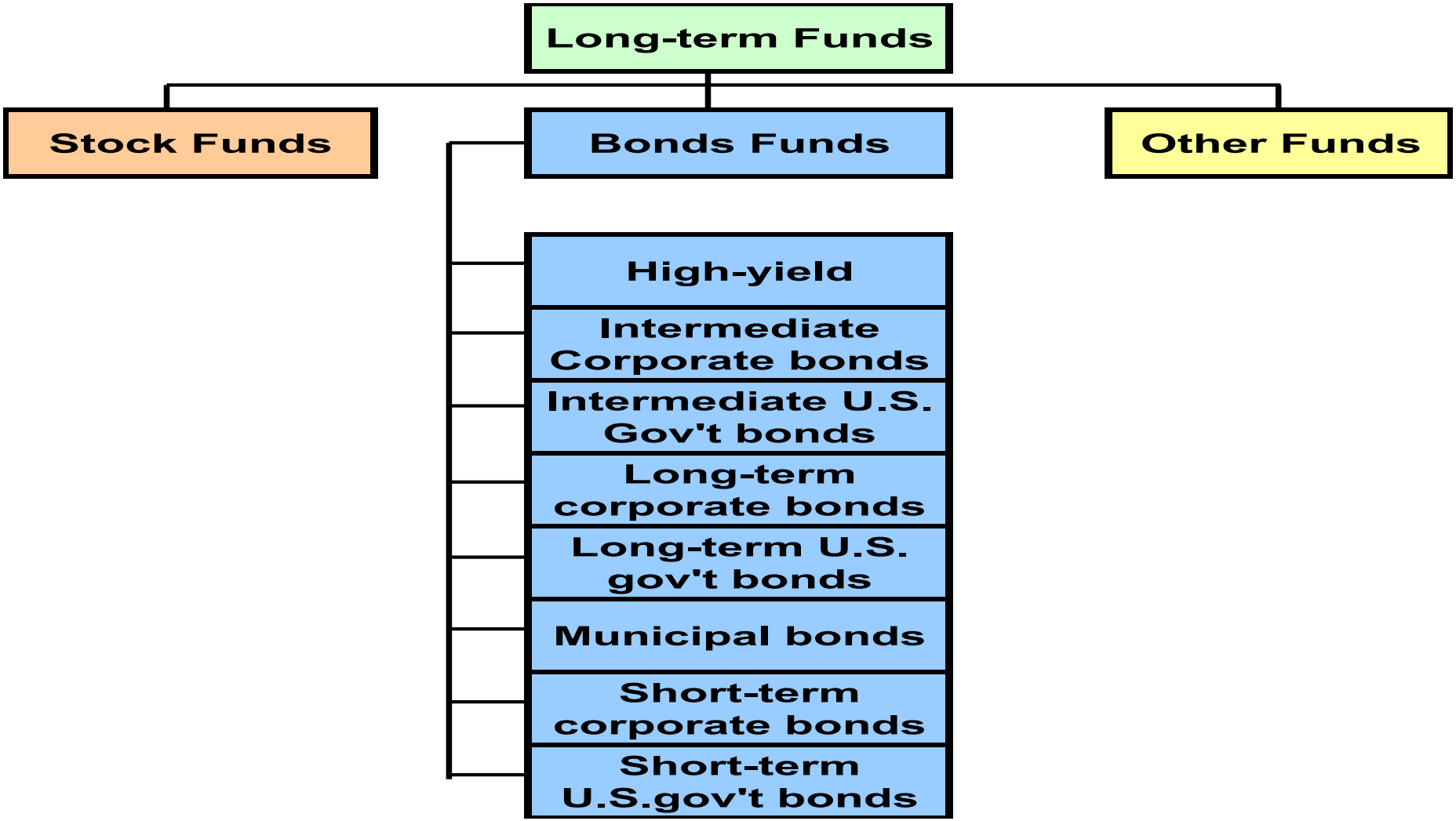
- Growth
- Current income
- Growth and Income
- Preservation of Capital

Stock Funds



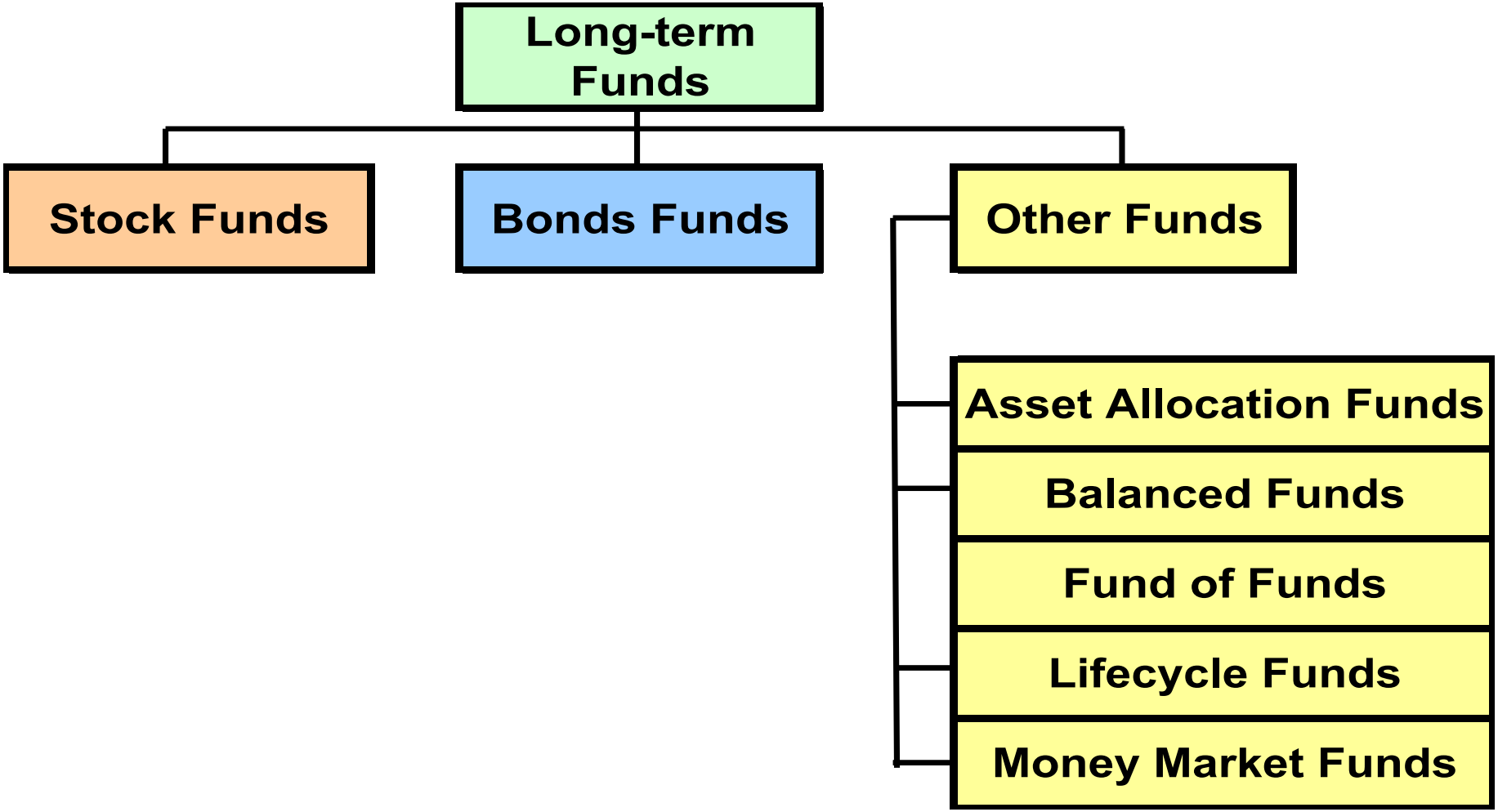
Source: Kapoor, Dlabay, & Hughes. *Focus on Personal Finance*

Bond Funds



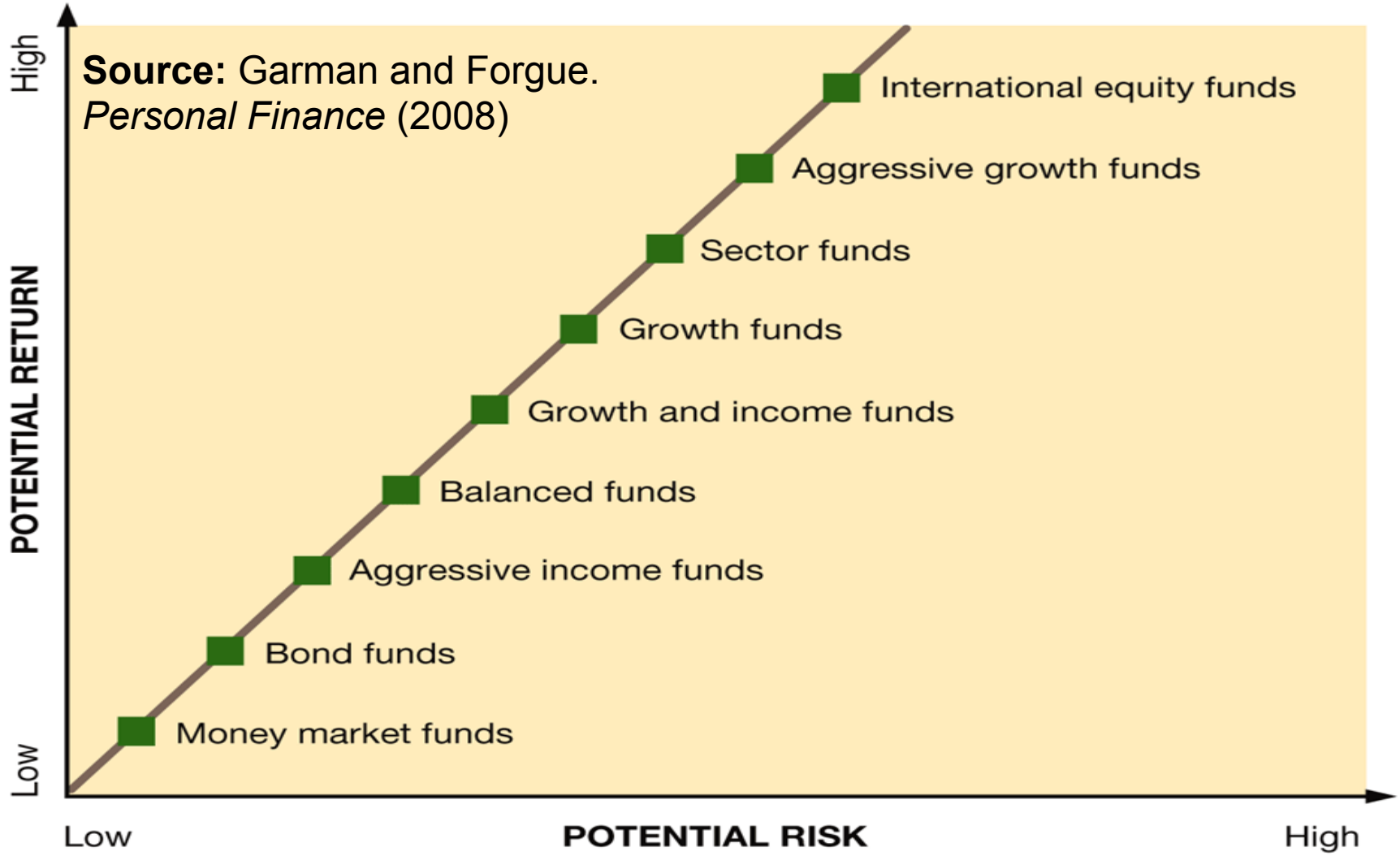
Source: Kapoor, Dlabay, & Hughes. *Focus on Personal Finance*

Other Funds



Source: Kapoor, Dlabay, & Hughes. *Focus on Personal Finance*

Balancing Risk and Return



Note that increasing the potential for higher returns also increases the risk to the investor's capital.

Mutual Fund Fees

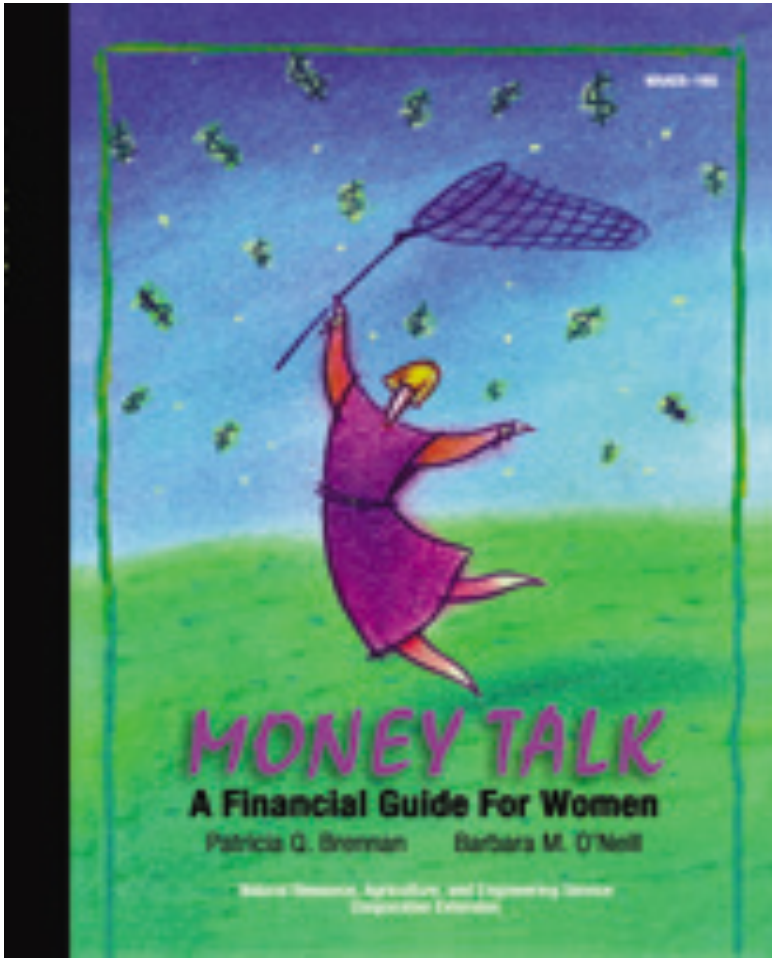
Source: Kapoor, Dlabay, & Hughes. *Focus on Personal Finance*

Type of Fee or Charge	Customary Amount
Load fund	Up to 8.5 percent of the purchase.
No-load fund	No sales charge.
Contingent deferred sales load	1 to 5 percent of withdrawals, depending on how long you own shares in the fund before making a withdrawal.
Management fee	0.25 to 1.5 percent per year of the fund's net asset value on a predetermined date.
12b-1 fee	Cannot exceed 1 percent of the fund's assets per year.
Expense ratio	The amount investors pay for all fees and operating costs.
Class A shares	Commission charge when shares are purchased.
Class B shares	Commission charge when money is withdrawn during the first five years.
Class C shares	No commission to buy or sell shares of a fund, but higher, ongoing 12b-1 fees.

Mutual Fund Purchase Steps

- Identify type of fund that matches goal
- Research specific funds
  - **Family of Funds:** One investment company manages a group of mutual funds portfolios
- Get and read the prospectus
  - Prospectus: Required legal document that states a mutual fund's investment objectives and policies
- Make initial purchase to set up an account
- Establish a schedule to buy more shares

Investing for Retirement



SESSION IV

Investing for Retirement

Mary has a lot of time
so she needs a little money
but...
If Mary had a little time
she'd need a lot of money

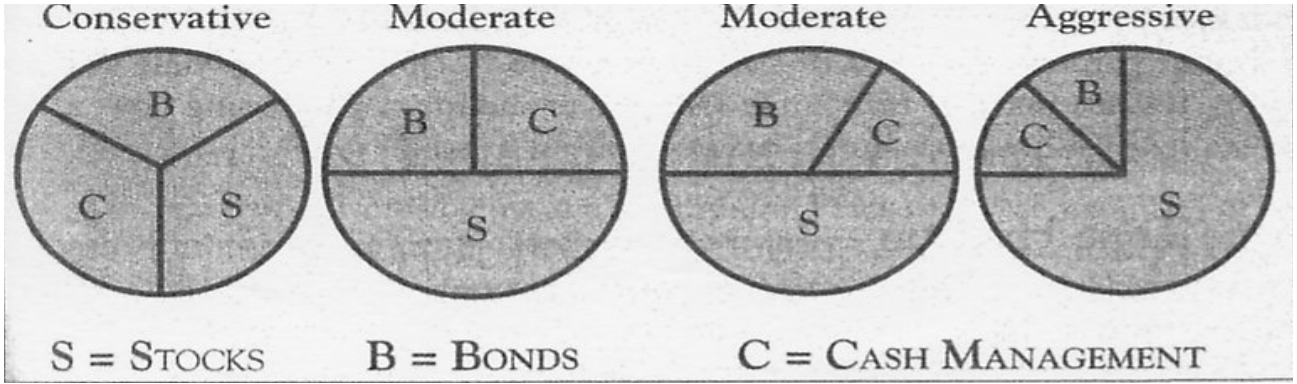
What will be covered in Session IV

Retirement Planning Lessons

1. Asset Allocation and Diversification
2. Building an Investment Portfolio for Retirement
3. Investment Returns
4. Taking the Guesswork out of Retirement
5. Keeping Your Financial Records in Order
6. Withdrawals—How to Make Your Money Last
7. How to Choose Financial Professionals

Asset Allocation

- Mixing different assets in varying proportions
  - Conservative, Moderate, Aggressive portfolios with different asset weights: conservative portfolio = less stock)
- Spreads investment risk
- Percentage of stock determined by
  - Age
  - Risk Tolerance Level
  - Time Frame for investing



Source: eXtension *Investing for Your Future* course

Asset Allocation "Rules of Thumb"

Guideline A: For risk-takers

Subtract your age from 115 _____

The answer is the percentage of your total investment you should put in stocks.

Subtract that number from 100 _____

The answer is the amount you should put in a combination of bonds and cash.

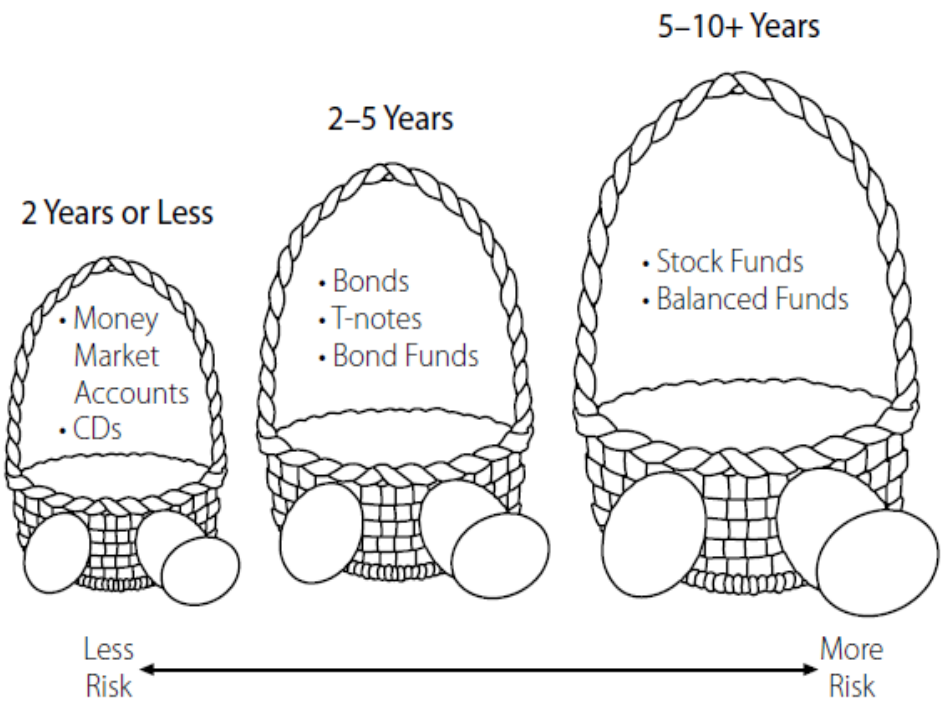
Guideline B: For the risk-averse

Subtract your age from 100 _____

The answer is the amount you should put in stocks.

Subtract that number from 100 _____

The answer is the amount you should put in a combination of bonds and cash.



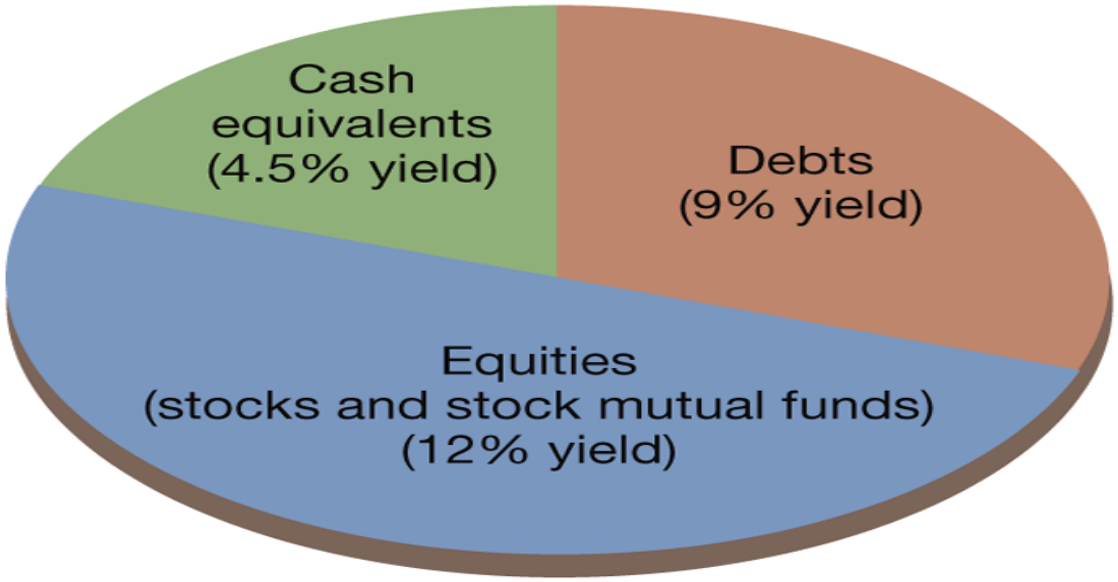
Asset Allocation Rebalancing

- Periodically rebalance to maintain original weights
  - Sell “overweighted” asset class
    - May be a capital gain in taxable accounts
  - Buy “underweighted” asset class (new money)

- Determine a rebalancing “trigger”
  - Do when there is a 5% to 10% shift in weights
  - Do annually on a certain date

- Find out if retirement plan provides this service

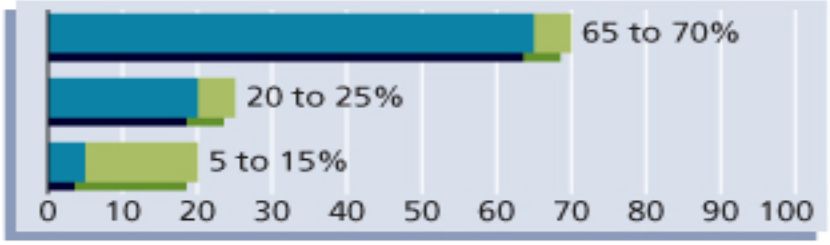
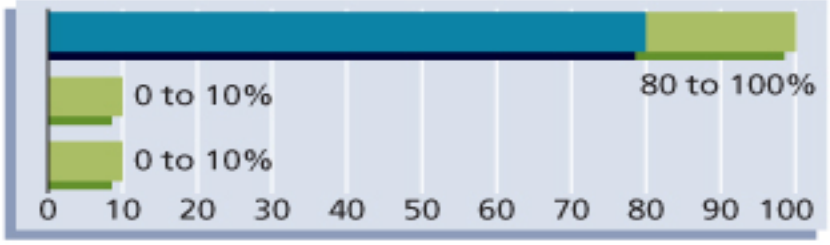
Asset Allocation: A Weighted Average



50%	of portfolio earning 12%	(50 x 0.12)	=	6.0%
30%	of portfolio earning 9%	(30 x 0.09)	=	2.7%
20%	of portfolio earning 4.5%	(20 x 0.045)	=	0.9%
100%	of portfolio earning		=	9.6%

Source: Garman/Forgue, *Personal Finance*

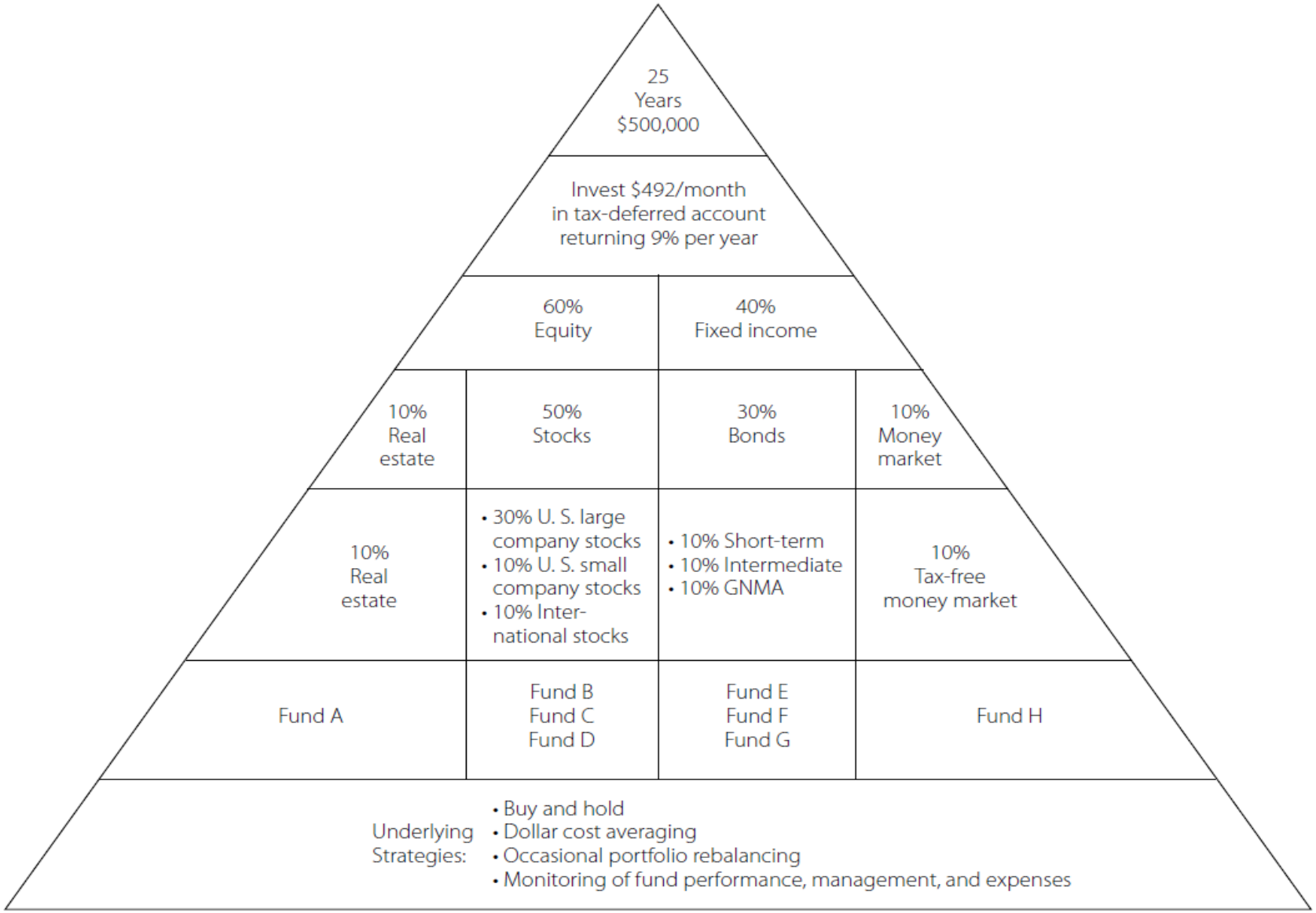
Asset Allocation Examples

Model Name	Asset Allocation	
Conservative portfolio	Stocks and mutual funds Bonds and CDs Cash and equivalents	
Aggressive portfolio	Stocks and mutual funds Bonds and CDs Cash and equivalents	
Very aggressive portfolio	Stocks and mutual funds Bonds and CDs Cash and equivalents	

Building an Investment Portfolio

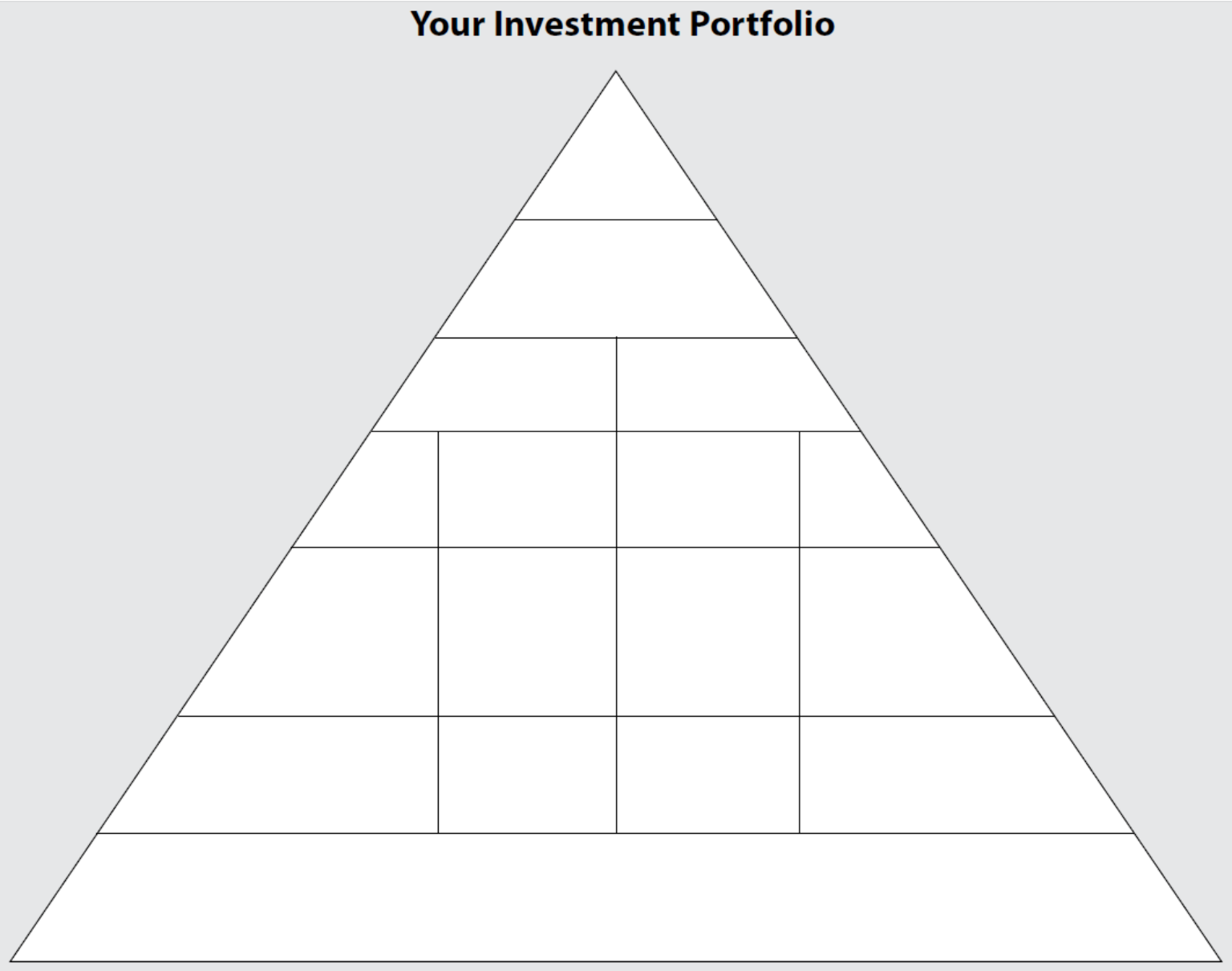
- Determine % of money in each broad asset class (e.g., 60% equity, 40% fixed income)
- Break down into more specific categories
  - Equity: 10% real estate, 50% stocks
  - Fixed-Income: 30% bonds, 10% cash
- Identify specific mutual funds or securities
- Key investment strategies
  - Dollar-cost averaging
  - Occasional portfolio rebalancing

Investment Portfolio Example



Adapted from: Taylor, J. (1993). *Building Wealth with Mutual Funds.*

Investment Planning Tool



Break-Even (Minimum) Rate of Return (RR)

Minimum RR: Return on investments (averaged together) needed to stay ahead of taxes and inflation

- **Formula:** Inflation rate/100-tax bracket rate
- **Examples:** 4/100-.28 = 4/.72 = 5.6%

  4/100-.25 = 4/.75 = 5.3%

  4/100-.15 = 4/.85 = 4.7%
- "It's what you keep"

Rule of 72

- Tells how long it takes to double money if you know/assume the interest rate earned
  - Divide years into 72 to get time frame
  - Example: 72/8 (% interest) = 9 years

- Tells you the interest rate needed if you know/assume a time frame
  - Divide time into 72 to get interest rate
  - Example: 72/9 (years) = 8% interest

Rule of 115

- Tells how long it takes to triple money if you know/assume the interest rate earned
  - Divide years into 115 to get time frame
  - Example: 115/9 (% interest) = 12.8 years
- Tells you the interest rate needed if you know/ assume a time frame
  - Divide time into 115 to get interest rate
  - Example: 115/10 (years) = 11.5% interest

https://partners-network.com/2012/09/06/compounding-rules-of-72-115-and-144/

How to Determine Your Return (on Investment or Portfolio)

- Write down beginning balance (1/1) and ending balance (12/31)
- Add to beginning balance one-half of investment deposits
- Subtract from ending balance one-half of investment deposits
- Divide result of Step 2 by result of Step 1
- Convert to a percentage

Sample Calculation

Estimating Your Return Using Simple Arithmetic

Invest $200 per month or $2,400 over the year.

Step 1

January 1—Account balance	$15,368
December 31—Account balance	$19,627

Step 2

	$15,368	Beginning balance
Add	$ 1,200	½ of $2,400 added
	$16,568	

Step 3

	$19,627	Ending balance
Subtract	$ 1,200	½ of $2,400 added
	$18,427	

Step 4

$$\frac{\$18{,}427}{\$16{,}568} = 1.11$$

Step 5

To turn the number into a percentage, subtract 1 and multiply by 100. The return in this example is 11.1%.

EXERCISE IV-3

Estimating Your Investment Return

Step 1

Write down the beginning balance of your portfolio at the start of the year and your

$_____ Beginning account balance

Investment Record-Keeping: What to Keep

- Tax returns (3-6 years after filing)
- Retirement plan records (e.g., deposits, loans, conversions, rollovers, beneficiary designations)
- Annual account statements from mutual funds and brokerage firms
- Records of investment purchases, including gifts and inheritances
- Records of investment sales

Record-Keeping Form

Purchase and Sale of Assets

Date of purchase or inheritance	Type of security	Number of shares	Purchase price or inheritance value* ($)	Date of sale or transfer	Amount of sale** ($)

Choosing Financial Advisors

- Get referrals from friends and other professionals
- Get information from industry organizations
  - CFP Board: https://www.cfp.net/
  - NAPFA: https://www.napfa.org/
  - XY Planning Network (Young Adult Focus): http://www.xyplanningnetwork.com/consumer/find-advisor/
  - Garrett Planning Network (Middle Income Focus): http://www.garrettplanningnetwork.com/
- Interview at least three advisors; ask questions
- Check compensation methods: fee (e.g., flat fee, retainer, or AUM), commission, fee and commission

Develop a Personal Investment Statement

1. I can best describe myself as a _____ investor (conservative, moderate, or aggressive).
2. I feel most comfortable investing in (e.g., CDs, stocks, mutual funds)_____, _____, _____, and _____.
3. Possible alternative investments might be (e.g., real estate) _____.
4. I feel I will be able to get a real (after-inflation) return of _____% from my investments.
5. Within the next month I will do the following to learn more about investing:

   _____

   _____

6. Within the next year I will do the following to educate myself about investing:

   _____

   _____

   _____

7. By the year _____, I wish to have $_____ invested so I can

   _____

   _____

8. By the time I plan to retire at age _____ in _____ years, I want to have accumulated

Investment Information Sources

- **Stock and Mutual Fund Annual Reports**

- **Financial Publications**
  - **Examples:** *Kiplinger's Personal Finance, WSJ, Money*

- **Quality Ratings**
  - **Bonds** -- Standard & Poor's, Moody's

  - **Annuities** -- Standard & Poor's, Moody's, Duff & Phelps, Weiss Research, A.M. Best

  - **Stocks** -- Value Line Investment Survey

  - **Mutual Funds** -- Morningstar

Many references are available at public libraries, websites, or via social media

Investment Calculators

- Investment Calculator [Inputs Include Investment Goal, Years to Save, Return on Investment, and Periodic Contribution] (Bankrate): http://www.bankrate.com/calculators/retirement/investment-goal-calculator.aspx

- Investment Calculator [Includes a Bar Graph and Pie Chart to Illustrate the Results] (Smart Asset): https://smartasset.com/investing/investment-calculator#a8ckPOiQ2v

- Investment Calculator [Includes Interactive Bar Growth to Illustrate Balance Accumulation Over Time] (Calculator.net): http://www.calculator.net/investment-calculator.html

- *Municipal Bond Tax Equivalent Yield* Calculator (David Lerner Associates, Inc.): https://www.davidlerner.com/calculators/bond-calculator

- Tax Equivalent Yield Calculator (Bankrate): http://www.bankrate.com/calculators/retirement/tax-equivalent-yield-calculator-tool.aspx

- Taxable Equivalent Yield Calculator (Oppenheimer Funds): https://www.oppenheimerfunds.com/investors/taxable-equivalent-yield-calculator

Infographic Insights

- *Stock Market Terminology: 20 Terms You Need to Know* Infographic (TimothySykes.com): http://www.timothysykes.com/blog/stock-market-terminologyinfographic/

- *Penny Stocks 101* Infographic (TimothySykes.com): http://www.timothysykes.com/blog/penny-stocks-101-infographic/

- *10 Financial Lessons We Can Learn From Warren Buffet* Infographic (Monevator): http://monevator.com/warren-buffetts-investing-tips-infographic/

- *In Investing, It's When You Start and Finish* Infographic (New York Times): http://www.nytimes.com/interactive/2011/01/02/business/20110102-metrics-graphic.html?_r=0

- *Trading vs. Investing* Infographic (CFA Institute): http://www.wallstreetmojo.com/trading-vs-investing/

- *Can I Become a Millionaire if I Invest in the Stock Market?* Infographic (TimothySykes.com): http://www.visualistan.com/2014/06/can-i-become-millionaire-if-i-invest-in-stock-market.html

Investment Risk Tolerance Quiz

Take the Rutgers Cooperative Extension *Investment Risk Tolerance Quiz:* http://njaes.rutgers.edu/money/riskquiz/

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Investment Risk Tolerance Quiz

Want to improve your personal finances? Start by taking this quiz to get an idea of your risk tolerance--one of the fundamental issues to consider when planning your investment strategy, either alone or in consultation with a professional. Choose the response that best describes you--there are no "right" or "wrong" answers. Just have fun!

When you're done, click on the "View Results" button to see how you're doing.

If you would like to score yourself, use this scoring grid.

Note: This quiz was developed by two university personal finance professors, Dr. Ruth Lytton at Virginia Tech and Dr. John Grable at the University of Georgia. By taking this quiz you will be contributing to a study on measuring financial risk tolerance. Your results will be recorded anonymously. We are not collecting any identifying information.

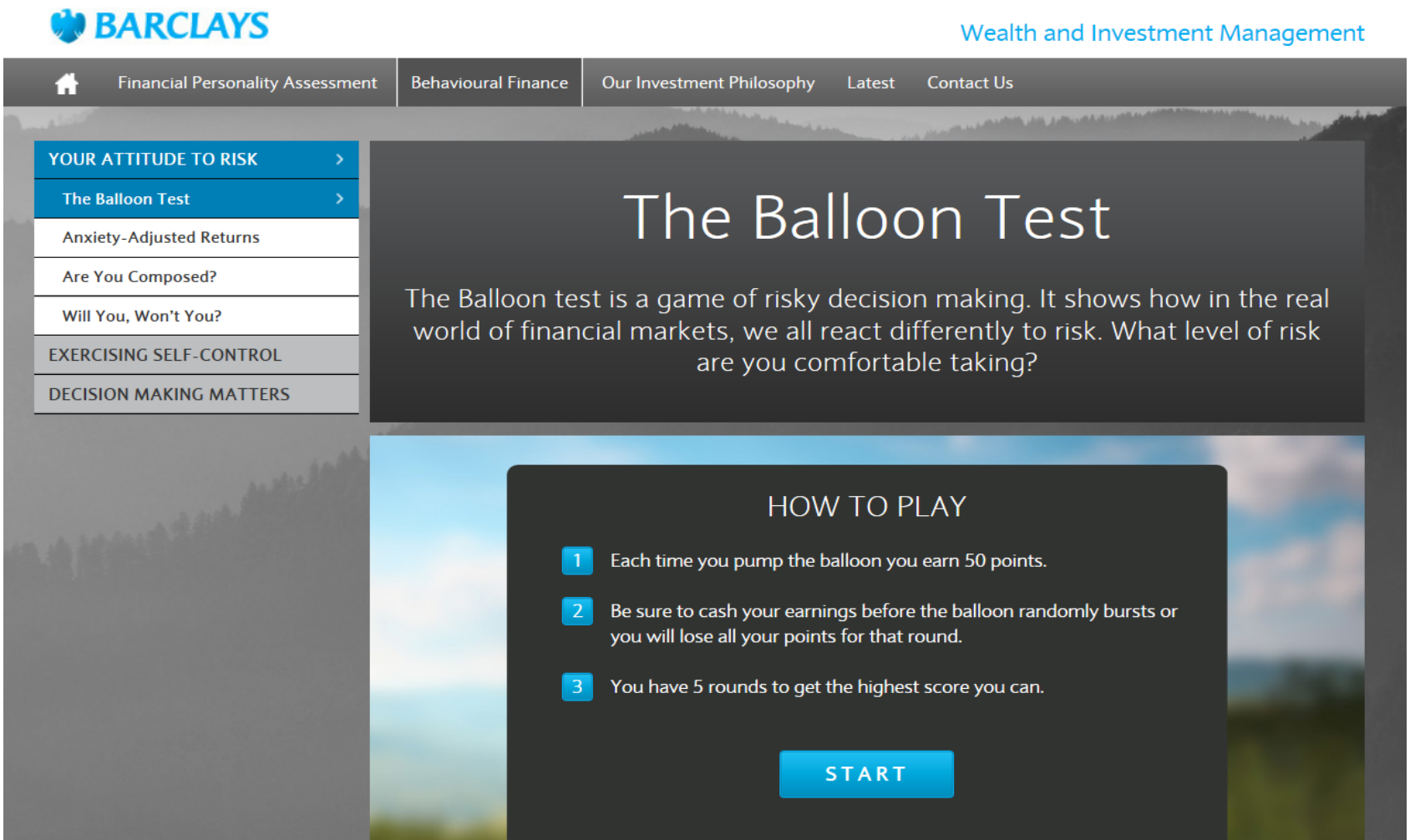
Investment Risk Tolerance Quiz

1. In general, how would your best friend describe you as a risk taker?
   - ○ A real gambler
   - ○ Willing to take risks after completing adequate research
   - ○ Cautious
   - ○ A real risk avoider

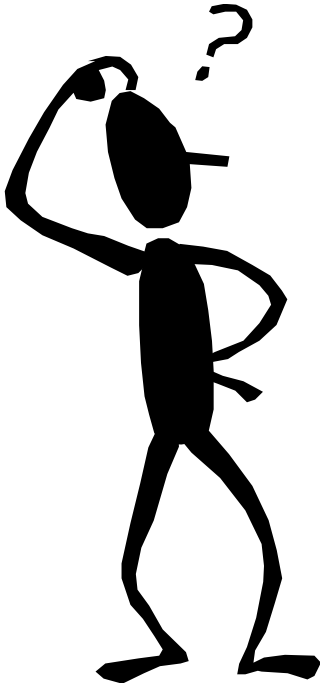
2. You are on a TV game show and can choose one of the following. Which would you take?

The Balloon Test

https://www.investmentphilosophy.com/behavioural-finance/your-attitude-to-risk/the-balloon-test



Question #5: Any other good investing resources?



The Bottom Line on Investing

- Get started now
- Over time, stocks have outperformed all investments
- Know your investment risk tolerance
- Match investments to your goals
- The biggest risk in investing is not investing -- inflation is the enemy
- Mutual funds are a good tool for beginners
- Reinvest dividends and capital gains
- Take a long-term view and hold on

PERSONAL FINANCE

Military Families Learning Network

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Reserve
Guard
Cooperative Extension

https://www.linkedin.com/groups/8409844

Evaluation & Continuing Education Credits

The Personal Finance Concentration Area offers 1.5 credit hours from AFCPE for AFC-credentialed participants and 1.5 CEUs from FinCert for CPFC-credentialed participants.

Please complete the evaluation and post-test at:
https://vte.co1.qualtrics.com/jfe/form/SV_cBhGUNUF0BH3yeN

Must pass post-test with an 80% or higher to receive certificate.

MFLN Personal Finance Upcoming Event

CFPB Research: The Greatest Hits

- Tuesday, October 3
- 11:00 am – 12:30 pm ET
- Location: learn.extension.org/events/3069

For more information on MFLN Personal Finance go to:

https://militaryfamilies.extension.org/personal-finance

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