

Chapter Nine: Investments

INVESTMENTS



Lesson Plan

Materials

1. Play money (\$2,000 per student)
2. Candy (Different types, 10 per student)
3. "Savvy student reward," which is an item perceived by the students to be of greater value than all the candy that they might possibly have won. For instance, a movie or sporting event ticket, a hat, a T-shirt, or a book. In most cases you won't even use this. You should have it on hand to reward a particularly savvy student who values making money in the game more than buying candy.
4. Auction game pieces
5. 1 die
6. Student Materials Packets
7. Whiteboard/Chalkboard
8. Marker or chalk

Outline

1. Introduction
2. Understanding Risk & Reward
3. How Stock Markets work
4. Vocabulary
5. Sources of Profit
6. Types of Investments
7. Social Responsibility
8. Risk & Return
9. Inflation
10. Time Horizons & The Time Value of Money
11. Diversification & Asset Allocation
12. Invest in Yourself
13. Careers in Finance

Lesson Objectives

1. The student will understand the relationship between investment risk and return.
2. The student will understand the open auction process by which stocks and other securities are bought and sold.
3. The student will develop a basic vocabulary of investment terms and be able to differentiate between stocks, bonds, mutual funds and money market funds.
4. The student will be able to describe the sources of profit from various types of investments.
5. The student will be able to describe the potential social and environmental impacts of investment choices. Specifically they will be introduced to the concept of externalities.
6. The student will be able rank types of investments from lowest to highest risk and return.
7. The student will be able to describe how inflation affects savings and what they can do to combat the loss of purchasing power.
8. The student will be able to select appropriate types of investments for various time horizons.

9. The student will be able to describe the time value of money, compound interest, financial independence and the importance of starting to save early in life.
10. The student will be able to describe the benefits of diversification and the purpose of asset allocation.
11. The student will be able to explain why purchasing a college education is an investment (asset) and not an expense.
12. The student will be able to list career options in finance and the training and compensation associated with such jobs.

Procedure

INTRODUCTION (5 min.)

1. Draw the IEAL chart and the Fountain of Wealth (see Appendix II) on the board.
2. Review with students the major concepts of the IEAL chart and FoW. Focus on the fact that using income to purchase assets which in turn generate income or appreciate in value is how people become wealthy. Ask the students to list some types of assets. If they mention stocks, bonds, mutual funds, or investments, tie them into today's lesson. Once students have the idea that owning assets is a way to increase wealth move to the FoW diagram. Briefly review that checking or draft accounts are used for money going in and out for expenses; savings or share accounts are used for building up emergency reserves and short-term savings goals; and that investment accounts are for long-term savings and have higher growth potential. *Today we'll be learning more about investments.*
3. *Why wouldn't you put all of your money into the investment account if it has the potential to earn so much more than a checking or savings account?* Hopefully they will answer that investments involve risk and may lose value. If not, say, *Well, let's play a game to find out why.* Transition to game 1 making the connection to the prior activity.

A DICEY INVESTMENT (15 min.)

4. *Please turn to the page titled "A Dickey Investment" in your packet. We are going to play a game and learn about investments. The objective is to grow your money so you can afford to buy as much of this candy (hold up the candy) as possible. Let's read through the instructions so we can play. Who would like to read the first section?*
5. Have the students take turns reading the sections.
6. *Which of these investment choices has the chance of growing your money the most? Which has the most risk?*
7. Require each student to mark the page on the investment choice they are selecting.
8. Follow the instructions and play the game.

9. As you play, use the opportunity to have the students practice calculating percentages and review terms from earlier in the course, such as the difference between principal and interest.
10. At the end of the game review who made the most, lost the most, and why.

THE CANDY EXCHANGE (10 min.)

11. Now each student has a different amount of money based on the \$1,000 they started game 1 with and how they did in the game.
12. *Now we'll auction off this candy in the same manner in which stocks and other investments are traded on the stock exchange. To begin with, I (the teacher) have all the candy, so everyone must buy from me. However, as each of you buys candy, you may bid to buy it from each other as well. Anyone can buy or sell as much candy as they have for whatever others are willing to pay it.*
13. Proceed by opening the bidding for the first piece of candy at \$500. Continue to auction off all the candy until it has all been sold to the students. In many cases the students will focus on obtaining candy and you (the teacher) will end up with all the money. If that is the case, more or less, then summarize with the following questions:
 - a. *Why did the same piece of candy sell for different prices at different times?*
 - b. *Did the person who started with the most money end with the most candy?*
 - c. *Did the process seem fair?*
 - d. *What factors resulted in the highest prices? And the lowest?*
14. Review that this is how investments are bought and sold on stock exchanges.
15. In rare cases a student will value the play money more than the candy (especially if you've driven home the lessons about spending wisely and saving). They may simply choose not to spend the money on candy. Even more rare (but exciting) is the possibility that a student will figure out that they can make money in the exchange part of the game by buying at low prices and selling at high prices. In either case, you may wish you had something to reward such a student since they passed up the candy, hence the "savvy student reward".
16. Transition to the next section by saying: *now that we know a little about how investments and exchanges work, let's learn some terms to describe them in more detail.*
17. Collect the money and dice and ask them to: *Turn to the vocabulary section of the packet.*

VOCABULARY (6 min)

18. *Please turn past the cover sheet to the first page. You will see a bunch of words labeled with numbers. Below those words are the definitions labeled with letters. I would like you to raise your hand and try to give me the definition for the first word in the box.*

OVERVIEW OF INVESTMENTS (20 mins)

19. *We are going to go through an overview of investments and then play another game. The more you pay attention now, the better chance you will have of winning the next game we play.*

20. Go through the included overview of the investments and images with the students.

LONGTERM INVESTMENTS GAME (15 mins)

21. Each student is given \$10,000 and is told they are saving for a down payment on a house. They have 10 years until they plan to buy the house. The house is presently \$100,000 and would require a 10%, or \$10,000, down payment.

22. Explain the choices based on the chart below.

Storage Location	Mattress	Checking Account	Savings Account	Bond Mutual Fund	Stock Mutual Fund
Annual Rate of Return	0.00%	0.25%	0.50%	4.00%	10.00%
Number of Years	10	10	10	10	10
Principal	10,000	10,000	10,000	10,000	10,000
Annual Interest/Gain	0	25	50	400	1000
Future Value	\$10,000	\$10,253	\$10,511	\$14,802	\$25,937
Cumulative Interest	\$ -	\$ 253	\$ 511	\$ 4,802	\$ 15,937
Simple Interest	\$ -	\$ 250	\$ 500	\$ 4,000	\$ 10,000
Inflation	4%	4%	4%	4%	4%
Future \$ needed	\$14,802	\$14,802	\$14,802	\$14,802	\$14,802
Surplus/Shortfall	(\$4,802)	(\$4,550)	(\$4,291)	\$0	\$11,135

23. Allow students to choose their investment vehicle and put there money into the account.

24. Ask the students to explain what happened? Guide them to discover inflation and its affect on savings.

Note to instructor

We have calculated this at 71 minutes of teaching time. This is the minimum. It can take much longer.

Feel free to adjust time according to student's needs.

Investing Basics Vocabulary Worksheet

Instructor Copy

Name _____

Date _____

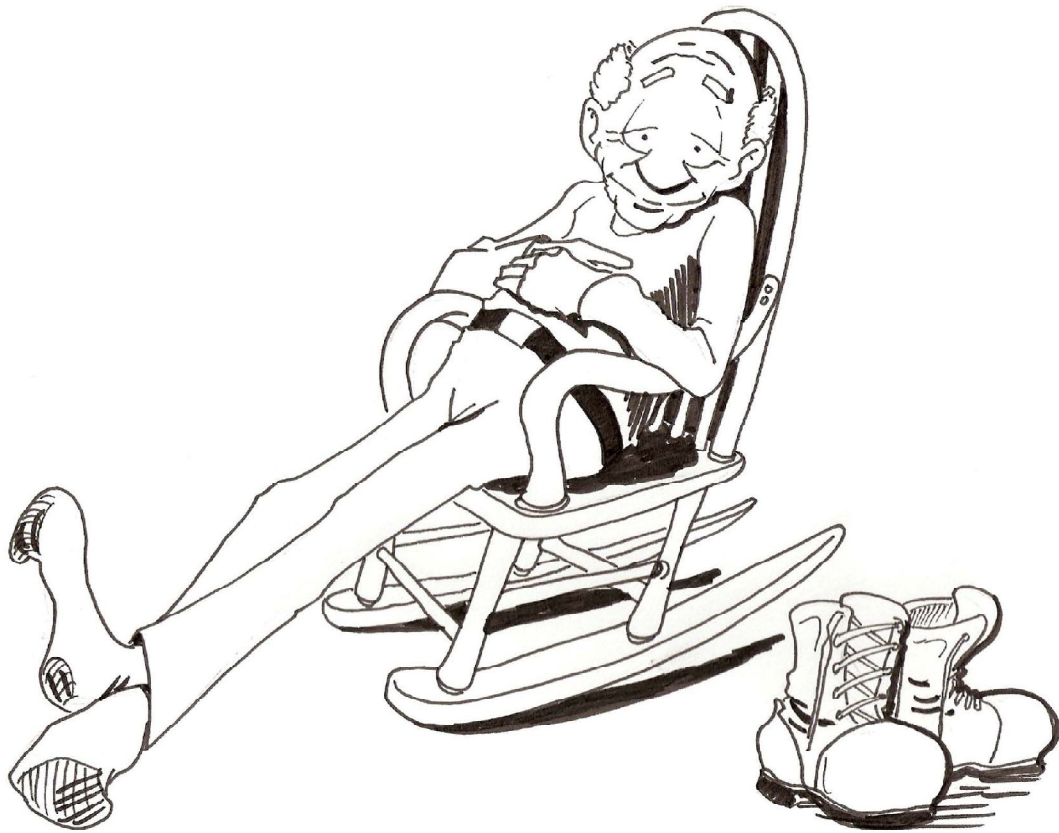
Directions

Listen to your fellow students as they read and define each word in the box below. Match the number of the correct word to its definition below the box.

- | | |
|----------------------------|--------------------|
| 1. Stock | 6. Interest |
| 2. Bond | 7. Diversification |
| 3. Initial Public Offering | 8. Risk |
| 4. Dividend | 9. Return |
| 5. Capital Gain | 10. Inflation |

- k. __10__ The loss of purchasing power over time.
- l. __6__ The rate, as a percent, at which your investments grow.
- m. __8__ The likelihood of losing money on your investment.
- n. __1__ A small share of ownership in a company.
- o. __3__ The first time a stock is offered for sale to the general public.
- p. __7__ Buying many different types of stocks and bonds to make your investments less risky.
- q. __5__ The amount of money you get when you buy something at a low price and sell it at a higher price.
- r. __9__ The amount of profit you expect to make on an investment.
- s. __2__ An investment in which you lend money to a company or institution and get a fixed return.
- t. __4__ Company profits shared with investors.

INVESTMENTS



A Dickey Investment Opportunity

Your great-aunt Hortense leaves you \$1,000 in her will to “do with as your little heart desires, dear.” You always were her favorite. You have four choices of what to do with the money; three are different types of investments with different levels of risk and one is just to spend the money.

We will take turns rolling the dice. With each roll we will pretend that one year has passed. Depending on what you roll, you will either gain money, lose money, or break even. The more money you have at the end of the game the more candy you will be able to buy.

□ **A Mutual Fund**

A diverse mix of stocks and bonds selected by a professional investment manager. You have to pay them fees, but you think they will manage your money well so that you will get a good return on your investment (your money will grow modestly).

Roll a 1 - Investment loses 10%.

Roll a 2 or 3 - Investment increases by 5%.

Roll a 4 or 5 - Investment increases by 10%.

Roll a 6 - Investment increases by 15%.

□ **An IPO**

This stands for Initial Public Offering, the first time a stock is offered. This is very risky. You could be buying stock at a very low cost that will shoot up in price and make you lots of money, or the business could fail and you could lose your money.

Roll a 1 through 3 - The business goes under. You lose 50% of your money.

Roll a 4 or 5 - Gain 20%.

Roll a 6 - The business does well. Your investment increases by 50%.

Dice lands and stays on one corner - The business booms and your investment increases 100%.

□ **You choose 10 stocks at random.**

You decide to invest your money by throwing darts at the stock table in the newspaper and buying the ones that you hit. You could pick all winners and make a lot, pick all losers and lose a lot, or pick some winners and some losers and break even or grow your money at a modest rate.

Roll a 1 or 2 – Lose 10%.

Roll a 3 or 4 – Some go up, some go down, but you break even.

Roll a 5 or 6 – You have chosen wisely. All go up in value. Your investment increases by 10%.

Investing Basics Vocabulary Worksheet

Name _____

Date _____

Directions

Listen to your fellow students as they read and define each word in the box below. Match the number of the correct word to its definition below the box.

1. Stock	16. Interest
2. Bond	6. Diversification
3. Initial Public Offering	7. Risk
4. Dividend	8. Return
5. Capital Gain	9. Inflation

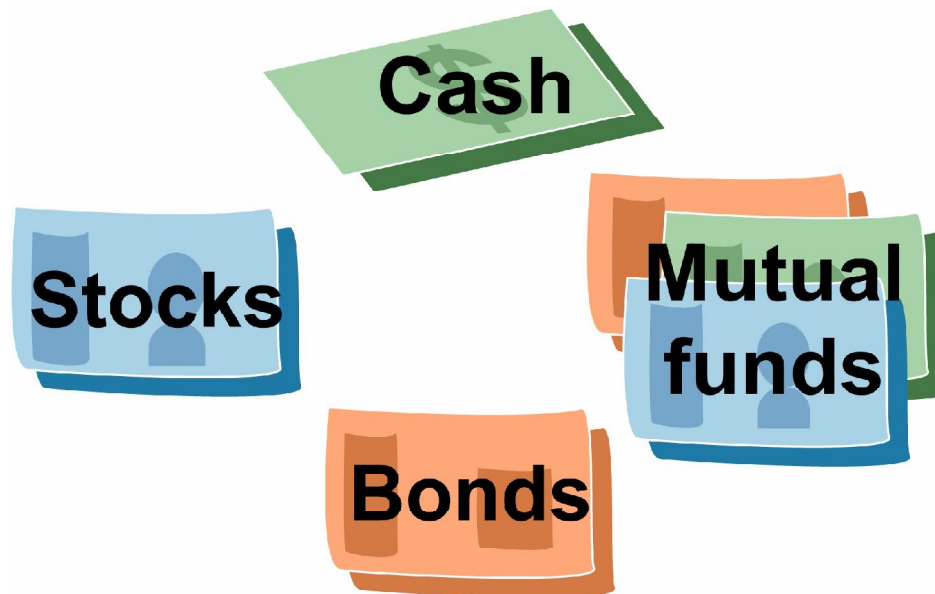
- a. _____ The loss of purchasing power over time.
- b. _____ The rate, as a percent, at which your investments grow.
- c. _____ The likelihood of losing money on your investment.
- d. _____ A small share of ownership in a company.
- e. _____ The first time a stock is offered for sale to the general public.
- f. _____ Buying many different types of stocks and bonds to make your investments less risky.
- g. _____ The amount of money you get when you buy something at a low price and sell it at a higher price.
- h. _____ The amount of profit you expect to make on an investment.
- i. _____ An investment in which you lend money to a company or institution and get a fixed return.
- j. _____ Company profits shared with investors.

Investing Basics

Ways You Can Earn Money by Investing

1. **Interest** - Money repaid to you when you lend to someone else.
2. **Dividends** - A stockholder's share of profits from the operation of a business.
3. **Capital Gains** -The money you earn from buying something at a low price and selling it at a higher price.

Types of Investments



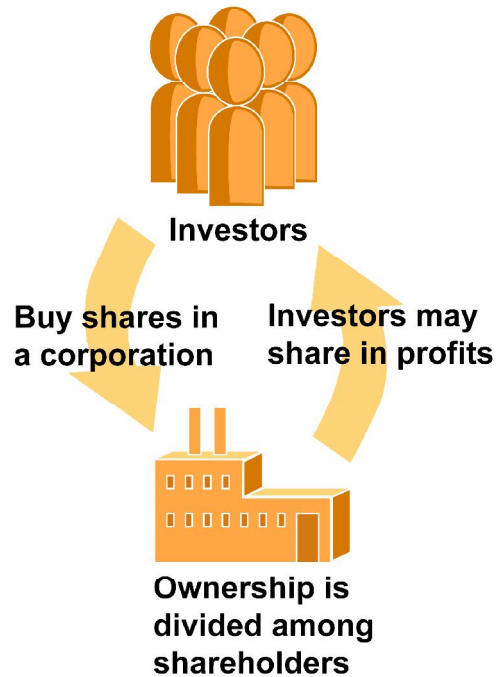
Source: www.pathtoinvesting.org

The Foundation for Investor Education

Stocks

Investing in stock

1. Stock is another name for **Equity Investments** or buying a share of a corporation.
2. Over a few months to one year the price can go up or down lot but...
3. Historically, over periods of 10 or more years, stocks in general, have consistently gone up in value.

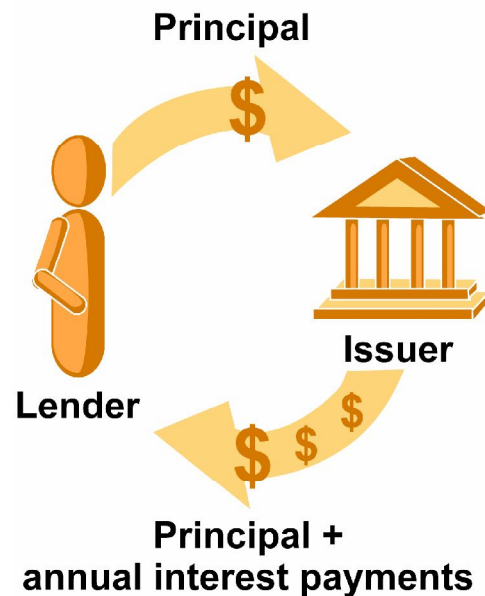


Source: www.pathtoinvesting.org
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Bonds

How bonds work

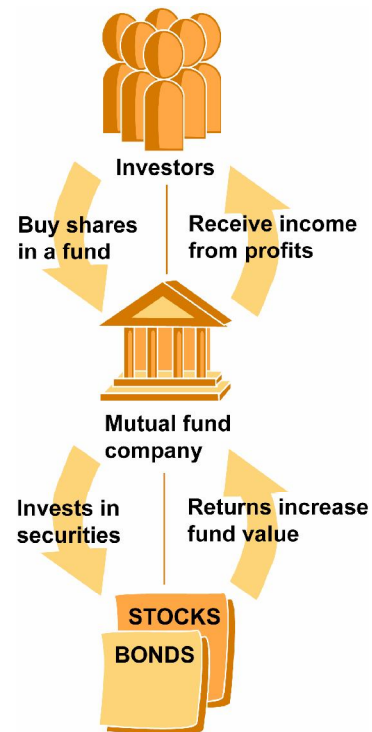
1. **Debt investment** – letting a corporation, government, or government agency borrow money from you, and pay you interest.
2. You know how much \$ you will get in return
3. Bonds can sometimes earn you more money than stocks, though usually not



Source: www.pathtoinvesting.org
The Foundation for Investor Education

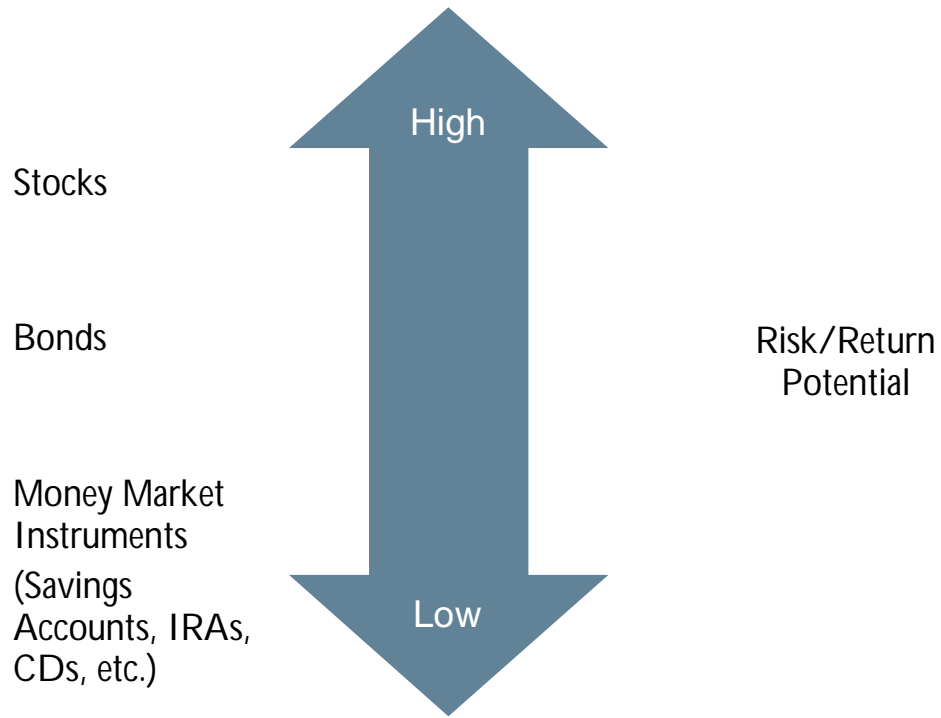
Mutual Funds

1. Sell shares to investors
2. Pool investors' money to purchase broad variety of stocks, bonds, cash equivalents, or some combination of those investments
3. Low risk or high risk depending on the investments in the fund and its investment objectives
4. May help you diversify your portfolio - or spread your money (principal) among many different investments



Source: www.pathtoinvesting.org
The Foundation for Investor Education

Understanding Risk



Inflation

=

Persistent increase in the costs
of goods and services

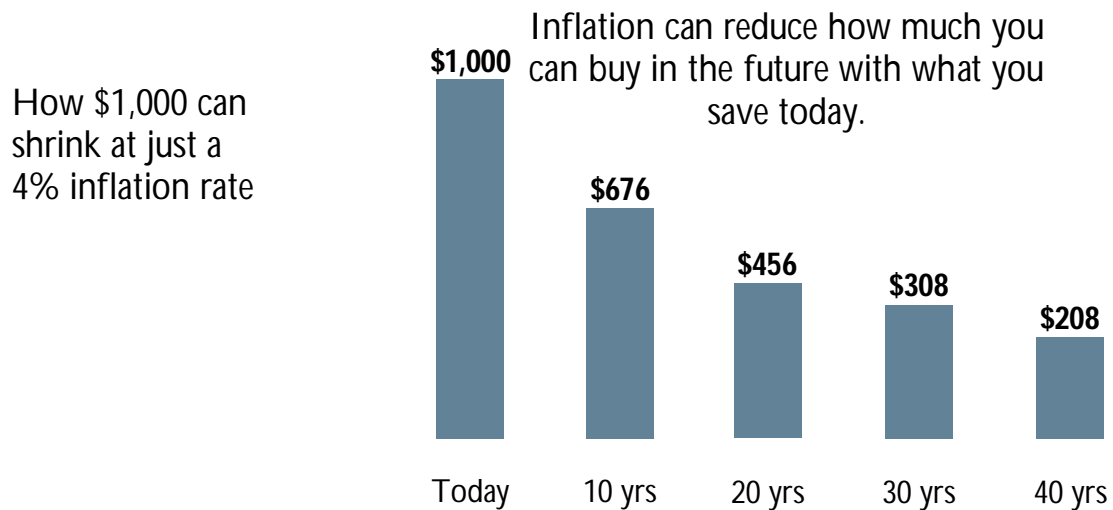
or

As your parents always say...

“When I was a kid you could get that soda for a nickel, now it costs a dollar!”

Source: www.pathtoinvesting.org

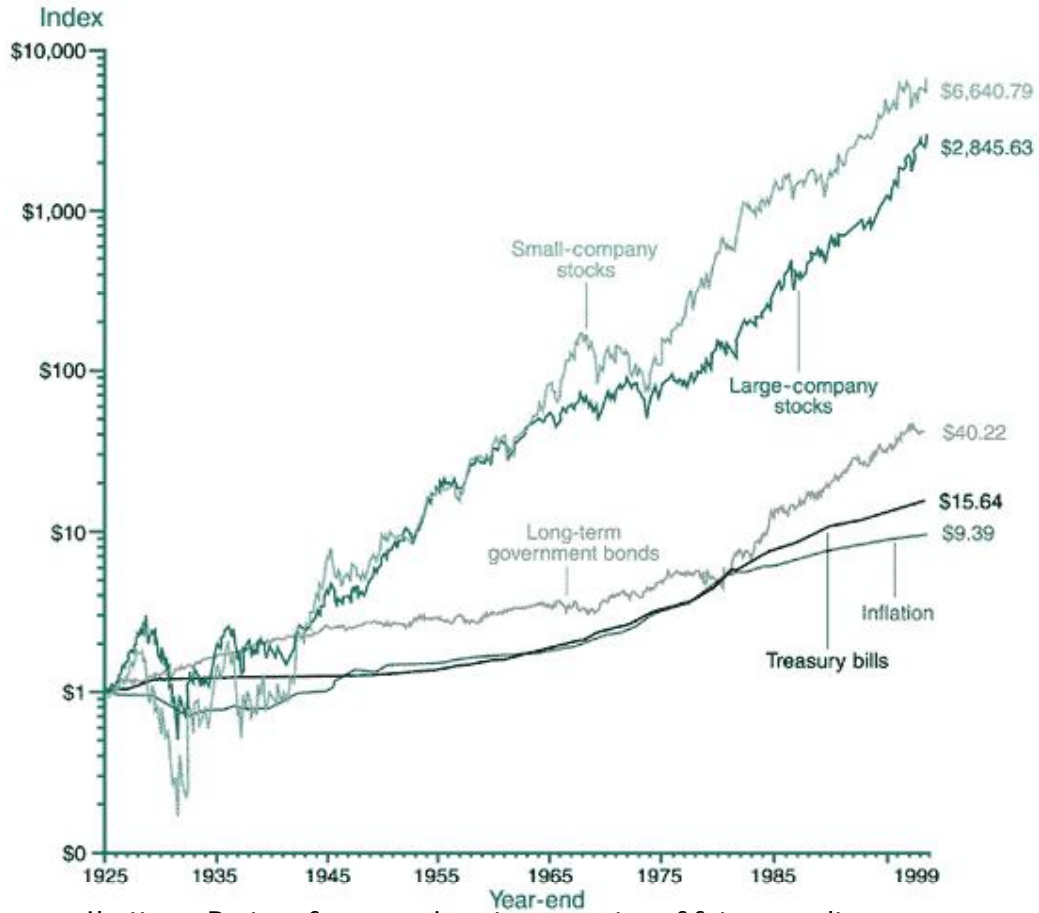
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Returns

or

If I Had Invested One Dollar in 1925 How Much Would I Have Today?



Source: Ibbotson. Past performance is not a guarantee of future results

Time Horizon

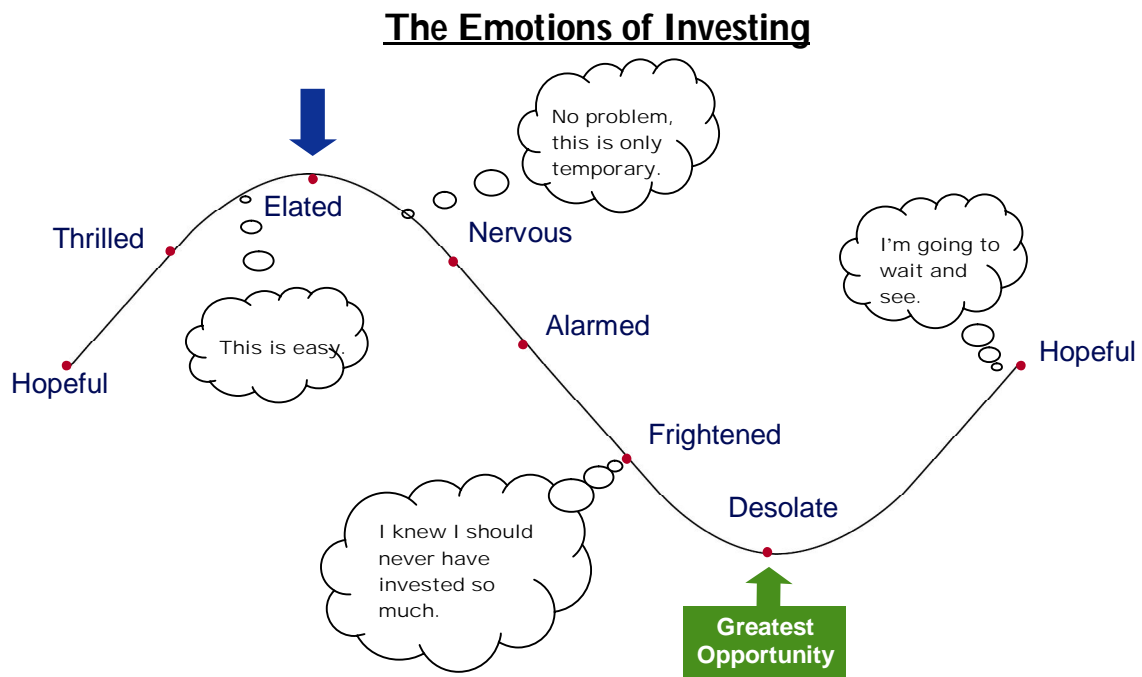
How Much You Earn Depends In Part on How Long it Stays Invested

TIMING	POTENTIAL GOAL
Short term (1 to 3 years)	Purchasing a home Purchasing a car
Medium term (3 to 10 years)	Funding your child's education Starting your own business
Long term (10+ years)	Planning for retirement

In reality, you might have several goals, all with different time frames

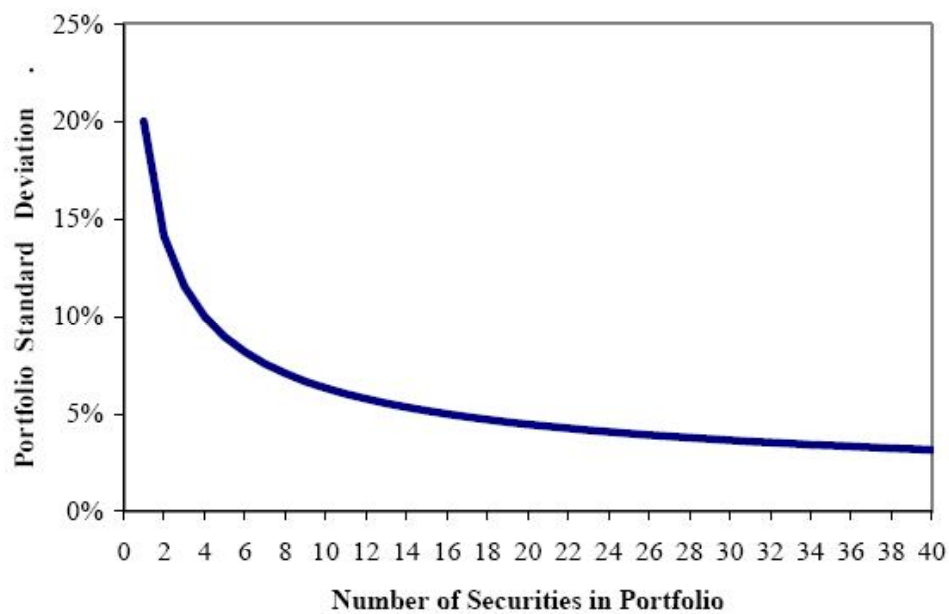
Source: www.pathtoinvesting.org

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Buy Many Different Types of Investments!

Diversifying Reduces Portfolio Volatility



Understanding Risk and Return, the CAPM, and the Fama-French Three-Factor Model. Tuck School of Business at Dartmouth, Case 03-111. 2003.

College Is An Investment In Your Self!

The value of a college education:

High School Diploma	\$27,915 average annual salary
Bachelor's Degree	\$51,207 average annual salary
Professional Degree	\$115,212 average annual salary

Over your lifetime you could earn over
\$1 million more with a professional degree!

Source of data: The College Board, U.S. Census Bureau.
Based on median annual household income in 2003.

Career Options in Finance

Types of Jobs

- credit unions and banks
- Corporate finance
- Financial planning
- Insurance
- Investment banking
- Money management
- Real estate

Education

- Undergraduate: Business Administration – Finance
- Graduate: MBA

Financial Planning, Licensing, & Certification

- Licensing: Series 7 & 66
- Certified Financial Planner (CFP)
- Certified Financial Analyst (CFA)

Job Prospects in Finance

Median annual earnings, as of May 2004:

of **personal financial advisors** were \$62,700

of **financial analysts** were \$61,910

of **securities, commodities, and financial services sales agents** were \$69,200

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2006-07 Edition, Financial Analysts and Personal Financial Advisors, on the Internet at <http://www.bls.gov/oco/ocos259.htm> (visited March 16, 2006)

Pay Yourself What You Earned

Name _____

Date _____

Directions

We want you to think about the work that you put into this class today. Did you listen and participate? Do you take part in the activities we worked on? How much do you think you should be paid for what you did today? Write out the check below for an amount between one and one hundred dollars depending on how much effort you think you put in today.

Thomas Dellwo 6000 Euclid Street Syracuse, NY 13210	101 Date _____
PAY TO THE ORDER OF _____	\$ <input type="text"/>
_____ DOLLARS	
Syracuse Cooperative Federal Credit Union	Eastside Office 723 Westcott Street Syracuse, NY 13210 Southside Office 401 South Avenue Syracuse, NY 13204
For _____	Signature _____
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