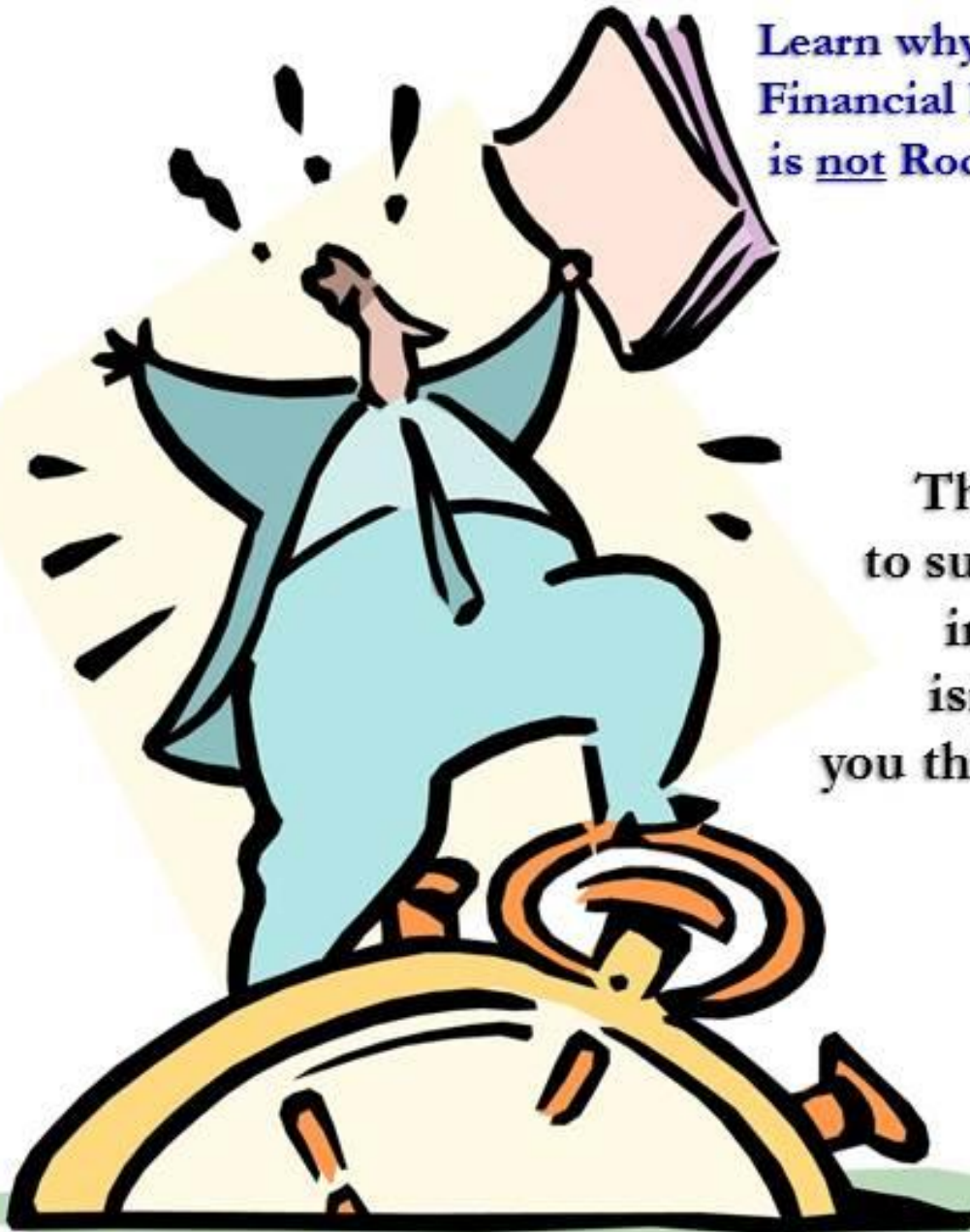


LOOK FORWARD: PLAN, SAVE and REWARD YOURSELF

Learn why
Financial Planning
is not Rocket Science

The secret
to successful
investing
isn't what
you think it is!



Free Financial Planning Software Included!

Larry Hennessey

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Author's Notes and Disclaimer

About the Author and Contributor

Have you ever wondered how different your life would be, if you had learned a few important lessons when you were younger? Although I have accomplished many things during my career, one of which included starting a very successful software company, the one skill I would have liked to master at a young age was financial planning. While running the software company, we developed software, which enabled companies to make small changes that resulted in increased profitability. I began to study the impact of small changes, and this led me towards a Bachelor of Arts degree in Economics. The study of economics challenges you to analyze information and realize there may be more than one answer for a satisfactory solution. The information in this book is designed to provide the financial knowledge that can help anyone at any age, but will have a greater impact if you are younger, as time plays a critical role in achieving financial success.

For someone so young Bryanne Chandler has an impressive list of academic credentials. Her undergraduate degree is from Franklin and Marshall in the field of Neuroscience. After Franklin and Marshall, she went on to earn a doctoral degree from the University of Maryland. Currently, she serves our country as a Captain in the National Guard. Due to her analytical background she was helpful in reviewing different sections of the book ensuring that the topics covered would reach the widest possible audience.

Disclaimer

Throughout the book references are made regarding specific types of financial investments to illustrate the power of investing over the long term. While the funds named in this book I own, have owned in the past, or have considered owning, I have no contractual affiliation with any Financial Services Companies. (You will see a lot of information provided for The Vanguard Group. I use Vanguard for my own investments, because of their Low Fee, No Load (no commission) investment philosophy that you will read more about in this book.) Any funds mentioned should not be considered an endorsement or an encouragement for you to buy; they are mentioned merely to highlight specifics related to my personal journey so you have real life tangible examples. Please remember, you can invest in any funds you like, but keep an eye on the fees and commissions, as this is your money. Additionally, neither the author nor any other person associated with the book can be held liable for any damages that might result from the information, counsel, or advice in this book. If the reader has questions beyond the scope of this book it is their responsibility to seek professional assistance.

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The Process that Became a Book

Every book has a beginning and this one came because of explaining the concepts of financial planning to a young woman I met named Bryanne. She is very bright and her excellent analytical skills, combined with a desire to learn, helped our conversations flow back and forth quickly. One day, while on a break, the topic turned to planning for retirement. She said that it was difficult to get the financial planning information she was looking for as everyone wanted her husband to be present in the meetings. Juggling two work schedules plus their kid's activities made this all but impossible. What I found as we got deeper into the conversation is that her academic path did not take her anywhere near the economics or finance departments. This is typical for many students, particularly those on a highly technical or traditional Liberal Arts career path.

While her frustration was understandable, my bigger concern was that her advantage of time was slipping away. I decided to build her a short course around the economics of investing and financial planning that would be easy to follow. I knew that giving her one without the other would leave her with more questions than answers. By the time we were finished everything had been distilled down to twenty pages and a spreadsheet. My goal was simple; I wanted to make her aware of how **time and compounding** impacts her world, and that with small changes, what her future would look like after saving for the next thirty years. Keep in mind; it's hard to ask someone to stick to a plan for that long unless you can show her the payoff.

The book is written in a non-technical manner, which enables a complex subject to be easily understood. Most people have savings goals in mind, but don't know how to create a financial plan, which makes **time and compounding** work for them. This quick start program delivers meaningful answers using simple, sound steps and when combined with the included planning software, provides information you can use today to design your future and arrive at the book's key points; start early, save, avoid mistakes and fees matter.

When you're finished with this book, you will have a very clear idea of how to get your financial life in order, so that small changes will have a meaningful impact. The objective is to create a process that becomes automatic, and can be adhered to throughout your career without conscious effort.

The Book is written in an easy to follow manner.

Section 1 explains how financial assets drive the financial planning process and that small steps will pay off in the future. The book will walk you through the different types of investment accounts that are available and an investment strategy to begin the process. Additionally, section one contains information on the impact of management fees on your portfolio. **Are you aware that management fees can cost you between \$500,000 and \$1,000,000 over your lifetime?** Choosing a fund with high management fees can be a substantial drag on your long-term gains. The included planning software will give you that capability to estimate the impact of management fees on your investments.

Section 2 covers specific information on **saving for retirement**. Here you will find four easy to comprehend sections showing how the process works step by step; also you will be able to model your own savings performance using the included retirement planning worksheet. Everything in this section is designed to help guide you towards "Your Number" for a lasting and secure retirement.

Section 3 is for someone who wants to know more about economics and investing. The more you know, the more you'll earn.

Planning Software Included with the Book

Even if you have a good handle on saving and investing, the software included with this book can enhance anyone's planning. At our website <http://look-forward.weebly.com/planning-software.html> you will be able to download the software. The software to assist you is free with the book (the file is password protected, and the password is located

in the Saving and Income Retirement Section.) Think of it this way, for about the price of your favorite designer coffee or latte you can get a book and planning software that will change the rest of your life. That sounds like an inexpensive investment.

Financial Planning is not Rocket Science It's Understanding the Process

Very few of us are taught the importance of financial planning and how it relates to our life. If it was offered in school, how many of us would have actually paid attention? By the time we understand we should be planning for our future, we take to the Web, YouTube or the typical financial sites. Most of what's there will either scare you out of your wits or is so lengthy it would require months to understand. It is a surprise that many people simply give up and stop thinking about saving and investing? I will make you a promise right now; I will not scare you and will provide you an easy to understand process in the first section of the book that will show you how to get started. This process will provide financial information that makes everything transparent and understandable. If it's easy, then it is likely you will take the next step.

When it comes to financial planning, many people can focus on short term goals like saving for the holidays, a vacation, new car and even a house. If the goal is far in the future, this is most likely beyond what many people can comfortably plan for. What people do not realize is that the goal is less important than the process. Saving for the future requires an easy to follow process in order to achieve the goal.

If that goal includes saving for retirement then many people would rather not think about it and stay 29 forever; some people even boldly say they will never retire. However, this may not be solely their decision. Their skills may no longer be cutting edge, their body may not be able to handle the same workload, or they might want to do something that makes retirement the time of their life. When combined with the improvements in life expectancy, the importance of planning for that stage of your life becomes more important and is easier if you begin earlier.

Today's working landscape is vastly different from what your parents faced. You might have multiple jobs, part-time jobs, internships with low pay, or life as an independent contractor. Many people today will have multiple careers, not just multiple jobs over their lifetime. Unlike the past, people are more on their own and if you learn how to navigate the system, this independence can equal freedom. Regardless of how you earn a living, planning for the future should be important and in the next few pages the process will be explained in specific detail.

It's Not What You Make But What You Save

Saving for your future is right up there with some of life's least favorite things; but it's a promise we make to ourselves. The funny thing is, when we break that promise we may actually feel better, as we have more money and can buy more stuff; and generally having more stuff makes us happier, at least in the short term.

Almost everyone believes what you earn that defines your financial goals, it's not. The truth is, it's what you save and invest that defines your ability to achieve financial goals. There is a great article about this on the Wall Street Journal web site. If you Google, "Six-Figure Incomes—and Facing Financial Ruin" you can find a link to the article. The article highlights people who make hundreds of thousands of dollars per year with minimal, if any, savings. When people make that kind of money they start to confuse *want*, with *need*. The point here is, bad habits start early.

Breaking the Cycle

The first step in breaking this cycle is to setup and follow a budget! Keeping track of your spending is critical to a sound financial plan. While creating and keeping a budget may seem unnecessary, the financial freedom it brings is more than worth the effort. To gain an understanding of your expenses you have two options at your disposal. Included with the book is a budgeting worksheet that will enable you to input your expenses. Additionally you could use a free service called Mint available on the Web at www.mint.com or as an App for your phone. Mint links to your Checking, Savings, Charge Card, Car Payment, and in real time, will show your balances, purchase activity, and payment due dates. Combined with this information, it will also show your credit score, and give tips on how to manage it. Once you see your information in glowing detail, you'll be amazed.

One of the first things you learn in economics is the concept of substitution. Substitution is where you stop buying one good and "substitute" it for another similar, cheaper good. A classic example of this: someone stops buying steak and switches to hamburger. One of the easiest ways to adjust your budget is to find items that can be substituted. The items to focus on are things that were once considered luxuries; which many of us believe have become necessities.

For example, if you have two services that overlap why pay full price for both? Let's say you have a cell phone or tablet that allows for high data usage and cable TV (both plans can be very expensive). Why not hook your phone or tablet up to the TV as your main source of entertainment and scale back on the premium cable TV services. A change like that could save you \$100 a month! What's the benefit of making an adjustment that saves \$100 a month? If you're 25 and make this kind of substitution: and then invest that money, it can be worth \$350,000 by the end of your career. I am not talking about big changes, but a few small changes that can have a big time real world impact on your life. There is another benefit to this exercise. If you ever get in a situation where your income drops, you will already have an idea of what to cut back on when expenses become greater than income.

The impact of Time and Compounding

This simple example will illustrate how making small changes can have a large impact. If you think about saving hundreds of thousands of dollars you probably could not envision it happening. However, could you envision saving \$3.30 a day? That is \$100 a month or \$1,200 a year. That one small step gets you your biggest advantage by leveraging the concept of **Time and Compound Interest**. The more time you have to invest, the greater the difference that will make. This example shows the difference between starting to invest in your mid-twenties, as opposed to waiting ten years and starting in your mid-thirties. (We are using the accepted long term stock market average return of 7% to calculate growth.)

Begin saving right out of college

Investing \$100 per month (\$1,200/year) for 44 years = \$354,592

Start Saving 10 years after graduation

Investing \$100 per month (\$1,200/year) for 34 years = \$167,781

Start saving 10 years after graduation, but at twice the rate

Investing \$200 per month (\$2,400/year) for 34 years = \$335,561

It's clear that starting early and saving consistently is a successful strategy. If you want a higher balance by the end of your career then increase each year's contribution by the inflation rate. If the inflation rate is 2%, then, next year's contribution will be \$1,224. The following year will be \$1,248, and so on. If you began saving right out of college, this incremental amount could boost your overall savings to \$455,000.

If you'd like to experiment with your own specific savings information, review the **Looking into the Future with Microsoft Excel** section of the book, which will direct you to the Future Value Calculator included with the book.

Pay Off Debt or Save First

This is a great question, and the correct answer depends on the interest rate for the debt, and the current rate of inflation. We all think about inflation in terms of things that we buy going up in price. However, when we talk about debt, what people fail to realize is that it can actually get cheaper over time as your income rises; providing of course we are dealing with fixed-rate low interest debt.

When dealing with longer term debt like a mortgage, with the loan interest rate less than the average long-term return rate of 7% it presents an interesting option. Many people would think it's better to make an extra payment a year or add an extra \$100/month to the payment. While this is a sound idea, depending on your situation, paying the debt off early may not provide the best return for your money. If you're thirty and have a mortgage, then over the normal course of life, you will pay off this loan well in advance of the end of your career. When you make extra payments to enable your loan to be paid off by your 50th birthday, you will be pleased with yourself for accomplishing the goal, but will have missed the best investing opportunity of your life. As described in the previous example, investing that extra \$100/month would add a substantial amount to your future savings. Please never forget that **Time and Compounding** are your most important assets when planning.

However, if you are dealing with a variable rate loan or credit card debt with an interest rate higher than the long-term average market return, then you are better served paying off the debt first. If you are in this position, then you need to be aggressive in your plan to be debt free. It makes the most sense to tackle the debt with the highest interest rate first, using any extra cash to pay this debt.

Finally, not all debt is equal. Financing your new TV is probably not the best use of your credit, while investing in yourself to look more professional and earn more money, may be an acceptable use of credit. Basically, if you can get a return on your investment, meaning that your income will rise more than the cost of the debt, then you have the basis for taking on short-term debt. Be careful and do not over spend; also have a detailed plan on how you will pay-off the debt before incurring it.

Here's one final thought on this subject. Managing your credit is one of the most important areas of your financial life. In case you are unaware, the rate you pay for any credit card or loan is a reflection of your credit score. In today's "risk based lending environment," a better score equal's a better rate. In the prior section, a reference was made to Mint's Credit Score and Assistance capabilities. This is very easy to use and will tell you how your current credit activities are impacting your credit score.

Where do You Begin Creating a Budget

Before you begin planning your future, you will need to create a budget that will show how your income compares to your expenses. If you have a good idea where you stand on income vs. expenses, then let me ask you one question. How much could you reliably set aside each month? Think of this as the concept of paying yourself first. Can you find a way to save \$100 a month? If so, then let's see if we can increase it.

In creating a budget take all your bills and separate them into two piles or two columns on a spreadsheet; those that are "must have," and those that are "nice to have." As part of the software that comes with this book, (available on our website <http://look-forward.weebly.com/planning-software.html>) we have designed a basic budgeting worksheet to help you with this. Do not be surprised if you end up moving a couple of the "must have" into the "nice to have" pile. Next, figure out what percentage of your income is used to pay the "must have" bills.

- When you get done you will have two probable outcomes.
- Your income equals or exceeds the combination of your "must have" and "nice to have" bills. Now make an assessment. If expenses are greater than income, then eliminate items from the "nice to have" list until expenses equal your income. Once you're there, take a second look at the "nice to have" bills, and decide which ones provide you a tangible benefit and get rid of the rest. The goal is to save at least 10% of your income.
- Your income exceeds the combination of your "must have" and "nice to have" bills. In that case try to free up at least 20% of your income by eliminating a few more of the "nice to have" bills. If you're just being introduced to these concepts and you're in your forties or fifties, then hitting the 20% savings rate should be even more important to achieve.

If you're single and decide to implement a budget your course of action is easy. However, when having the savings conversation with your family, it is advisable to setup a time to introduce everyone to the concept of family budgeting. During this family meeting, it should be made clear that any type of readjustment would be spread out evenly with everybody giving their fair share. This activity will be especially beneficial if you have kids; the ability to manage money is an excellent skill to teach any young person. Your age and the distance from your goal, will dictate the degree of action required.

Finally, I can imagine that some people might be discouraged and tempted to give up here. **Do not give up;** the first step in making things better is realizing that change is hard work. If you can just save \$3.30 a day, you can begin to make a difference with **Time and Compounding** doing most of the work for you.

What are Financial Assets

If a key component to your plan is utilizing financial assets, and you do not have an understanding of how they function then you are at a decided disadvantage. This section is designed to quickly let you know what financial assets are, and how they power the investment process. When I prepared the overview for my friend, I was not sure how much she knew about assets (this is a shorthand way of referring to a dozen or more types of financial assets) and figured that since these terms were not part of her everyday conversation, it was worth the time to describe them. When you hear these terms on the nightly news, they come without an explanation. You'll hear phrases like, "the S&P was up big today," "Bonds are taking a beating," or the "Dow had its worst day in over a year." It's like walking in on a conversation not spoken in your native language; first you're lost, and then you become disinterested.

Time and Compounding – Understanding this concept is critical when working with financial assets. For one minute, do not think about money. Instead equate this to the life cycle of a tree. Once you plant a seedling the process is started and pretty soon the tree begins to grow. Along the way, if it gets some sunlight and moisture (this is like savings), it will get even bigger until it is harvested. This is how **Time and Compounding** works; you start the process, give it a little extra money, and let the investment do all the work. When you're ready, the money is waiting for you.

What is a Stock? Suppose you owned a company and needed \$1,000 to open a new office in another state. Your options would be to borrow the money from your local bank, which you would have to pay back, or you could sell a small fraction of your company. Let's say your company was worth \$10,000, and the \$1,000 you need for expansion represented 10% of the value of your company. You could sell either a single ownership share for a \$1,000 or 1,000 shares for \$1 each. Many companies would prefer to have many small investors than one large investor. When enough companies decide to do this, and enough people want to buy shares in a company, you now have a stock market. In a stock market, people buy and sell shares in various companies with the hope of making a profit. You can also make money by buying and holding a stock, and receiving a portion of the company's profits that are returned to the shareholders via Dividends. Additionally, if the company's stock is in demand, its share price will rise thus increasing the value of your investment.

What is a Bond? Suppose you are Mayor or First Selectman of your town and you need to build a playground for the kids, and the cost for that playground is \$5,000. You could go to the bank and borrow the money, but it might be to your advantage for the town to issue a bond. The U.S. government does this all the time with U.S. Savings Bonds. The technical definition of a Bond is they are debt investments issued by governments or large companies that cover a specific period at a specific interest rate. Bonds that are issued by governments usually carry a lower interest rate because they can be classified as tax free, so while the investor may earn less in direct interest payments, the interest they do earn is tax-free, which evens out their return in the long run. Bonds that are issued by large companies also carry a low interest rate because the company is deemed as stable. However, smaller, less stable companies offer bonds that will pay a higher interest rate to compensate the investor for their slightly increased risk, and these are called Junk Bonds.

Bonds can serve two purposes in your investment portfolio. Individual Bonds can be used to offset the volatility of stocks and the interest payments can help to increase your income. However, if you own a bond fund which is a collection of many different bonds inside of one investment (this is just like a stock index fund, but using bonds instead of stocks) you will see the share price, also known as the Net Asset Value, move up and down over time. If you are using the bond fund for income then the movement in share price will have less impact, because you invested in this fund for its income generating potential. However, if you are looking at a bond fund as a short-term investment then you can face a degree of volatility that you might not expect. Bonds are interest rate sensitive, meaning their value is tied to the current interest rate at which companies and governments borrow money. The

share price of the fund works on an inverse relationship meaning as interest rates rise the share price can fall and as interest rates fall, the share price can rise. If you intend to invest in a bond fund for the short-term please be aware of the risk.

Cash – Many people might not think of cash as an asset, but if we looked at it as a “cushion,” or a “rainy day fund,” then its significance becomes clear. Depending on your life-style it’s always advisable to have money easily accessible that is not invested, but rather kept in a savings account or money market account. If you’re just starting out, then save at least a couple of weeks pay as a cushion, and then save enough to open your investment account (this can be done with \$1,000 or less). Then go back to building the “rainy day fund,” to a comfortable level, usually between three to six month’s earnings, before resuming normal investment savings.

The Dow Jones Industrials (DJI) – A grouping of 30 large company stocks that at one time could be used as a barometer for the U.S. economy. Now, it’s just a listing of thirty really large companies in different industries.

S&P 500 – An index of 500 companies representing the U.S. economy. The S&P is a much better barometer of the current U.S. economy than the Dow.

NASDAQ - The Nasdaq Composite tracks the stock share price of approximately 3,000 companies. These companies represent a wide range of industries and vary in size from very small to very large.

Diversification – In itself, Diversification is not a financial asset, but it is at the heart of how to look at investing. The best way to describe diversification is to picture a seesaw. In a perfect world you would have investments that worked opposite to each other balancing the seesaw. Technically, it would mean that the investments would be “uncorrelated.” The idea being, that when one investment was up, it would compensate for the one that was down. If you had many similar investments that all moved up and down together, these would be “correlated.” The point here is that when the market is up, you’re up more. When the market is down, like in 2008, you’re down much more. When you have a portfolio that is positively correlated, and the market drops you will most likely utter one of two phrases, “What was I thinking” or the investor’s prayer, “Please God, let me get back to even.” I understand the prayer works for all religions and all languages.

ETF’s – Known as an Exchange Traded Fund. They are like Mutual Funds meaning they are a collection of stocks or bonds under one umbrella, but with one notable exception. When you buy or sell a Mutual Fund, all transactions happen at the end of the trading day (4PM EST). With an ETF, you can buy and sell in real time, like stocks. Additionally, like stocks, the buy and sell prices of an ETF change constantly.

Asset Allocation – Typically, a mutual fund will hold stocks and bonds that correspond to different sections of the economy known as Sectors. Some funds can be even more diverse holding different Asset Classes like minerals and real estate. A more diversified portfolio is preferable as it spreads your risk across different sectors or assets, and can capture gains from different parts of the economy. Having all your money in one company is great on the way up, but not so great if the next product is a dud!

Index Fund – You can think of an index fund (also called a passive fund) as a financial instrument that represents a broad cross section of companies in a market segment. One important difference with a passive fund is that the fund does not buy or sell individual stocks in order to change its allocation mix which is why these funds have low internal fees. As an example, the S&P500 is overseen by Standard and Poor’s containing 500 stocks which represent 75% of the largest companies in the country.

Actively Managed Fund – This type of mutual fund will have one or more managers that are actively trading stocks and bonds with the hope of generating the best possible return. For example, if the manager is looking to add an airline stock to their portfolio they review the financials of all airlines and pick one they think will rise in value. Managers are rated on their ability to “beat” their benchmark index (many managers are benchmarked against the

S&P 500). Trying to beat the benchmark is really just a sophisticated guessing game, and the uncomfortable little secret on Wall Street is many managers do not beat their benchmark index over the long-term. If a majority of managers do not beat their long-term benchmark, then tell me again why they charge such high-fees for managing their fund?

Balanced Mutual Fund – Typically this type of fund can contain a diverse range of different Asset Classes like, Stocks, Bonds, Real Estate, and Commodities. It can be somewhat difficult to build a balanced portfolio of Stocks (both foreign and domestic) and Bonds (government and corporate) on your own. The easiest way to achieve a diversified investment strategy is to invest in a balanced fund that holds a mix of U.S. and Foreign Stocks and Bonds. You can Google balanced funds and get a list of really good funds and find the ones you like. If you would like to understand more about Balanced Funds check out this link: <http://money.usnews.com/funds/mutual-funds/balanced>

Commodities – Are physical assets, things you can touch. Items like Oil, Gold, Silver, Sugar, Coco, and Lumber all trade on various markets around the world, while people speculate on their current and future value. The important thing to realize about commodities is that they are only worth what someone else is willing to pay for them, and are primarily used as a trading mechanism in a portfolio

Management Fees – These are the life force of Wall Street. It's what pays for all the sports cars and vacation homes in the Hamptons. The fees come in the form of commissions when you buy a fund or as maintenance fees for all the buying and selling that goes on inside the fund. Typically, traditional funds have fees structures between .75% and 1.5% (the exception is Vanguard as their average is .25% or less when measured across all funds). How does this impact you? For two similar funds that invest in similar things; the fund with the higher fees must outperform the fund with the lower fees by the difference. A better way to think of fees is money you did not receive in the form of gains. In an up market, fees are ignored, because you're making money, in a sideways market they can stop you from eking out a small profit and in a down market, they add to your losses. Here's what they will not tell you regarding fees; they really mount up later in life. If you are a modest, but consistent saver that begins right out of college and lives to the ripe old age of 90, you will have a large nest egg when you retire. The difference in fees paid between a low-cost fund and a traditional fund with a yearly fee of .75% over your life time, will be hundreds of thousands of dollars. The difference between a fund, on the left, with a .18% yearly fee and a fund, on the right, with a .75% fee, can be almost \$500,000. That is money, which went to the fund company as opposed to you.

Yearly Fees	Fee = .18%	Fee = .75%
Cost over your lifetime	\$122,252	\$509,383

You should also beware of funds that carry a commission or "Load." Typically, if a fund has a Load it will be 5.25% and without a frame of reference, that does not mean anything. Suppose you invest \$10,000 in a fund with a "Front-End Load" of 5.25%. This means you are really only investing \$9,475 as the commission comes off the front end. (If you were to look on your statement what they actually show you is that the full \$10,000 was invested, but the price of the fund was raised by 5.25%, which is essentially the same thing). How does this hurt you? If you invested and held this fund for thirty years the \$525 commission could cost you at least \$4,000 in missed gains over thirty years. The real number would be higher as my calculation does not take into consideration capital gains and reinvested dividends that would be earned on shares that were lost to commission.

The message here is **fees are important**; keep your eye on the funds management fees and commission structure. Remember, it's your money and you sacrificed something now to enjoy something tomorrow, so make sure all your money is working for you.

Investment Accounts Which One Will Meet Your Needs

Since this book will make its way into the hands of many different people here is a brief overview of the different types of accounts that are available. Since taxes and tax status are unique to every individual, check with a tax professional before making any decision. The Internal Revenue Service or your investment company can provide additional information as to which account type is correct for you.

- A Traditional Brokerage investment account is the type of account many people have when just starting out. By definition, this is a taxable account that can be used for any investment purpose. What does it mean that the account is taxable? Suppose you buy 10 shares of XYZ Company at \$16 a share and it goes up in value to \$32 a share then when you sell it, you will have made a \$160 profit. That profit (the amount of tax due depends on how long you held the investment) needs to be reported on your tax return, and a piece of that profit will need to be paid in taxes. In a regular brokerage account, any investment that pays Capital Gains and Dividends will need to be reported on your taxes as well.
- Individual Retirement Account or IRA. These are tax deferred accounts, whose contributions may be deductible from your taxable earnings. Additionally, any tax owed on gains earned inside the fund is not paid until the money is withdrawn during retirement. There are specific rules on how much money can be put into these accounts. When opening your IRA account, the organization you are opening the account with can provide detailed information on your contribution guidelines.
- Roth IRA's. These are like IRA accounts, but you pay the taxes on the money before you invest, so you would invest a little less now, but the earnings can be withdrawn tax free in retirement. If you are lucky enough to catch a high yielding fund at just the right time, the resulting tax-free gain could be astounding. Certain Health Care, High Tech, Small Cap, and Large Growth funds have had high six-figure to low-seven figure returns from a single \$10,000 investment over a thirty year period.
- A Simplified Employee Pension or SEP, is like an IRA account, but requires you to be self-employed. The actual amount that can be deposited is much greater than a standard IRA, but for specific rules check with your financial advisor or your accountant.

Remember with an IRA, Roth IRA and SEP IRA, in many cases, withdrawing the money before age 59 ½ could require you to pay a penalty and any tax owed on the money. Before withdrawing money from any of these accounts check with a financial advisor or a tax professional. Regardless of which path you follow, the goal is to create a process that becomes natural, and that can be adhered to without conscious effort.

If you are already contributing to a retirement plan, make sure you are contributing the maximum amount. If you are contributing to a company sponsored plan, and your circumstances prevent you from contributing the maximum amount then at least contribute the amount that equals the full matching amount from your employer. If you're not saving for retirement talk to Human Resources, and find out if your company has a retirement plan. If they do, then join.

If you work for a small company that does not have a retirement plan, you can open an IRA or Roth retirement account with an investment company. As of 2015, the U.S. Government will make available a myRA retirement account www.treasurydirect.gov/readysavegrow/readysavegrow.htm. While traditional investment accounts require an opening deposit of at least \$1,000, the myRA account can be opened with as little as \$25, with additional contributions as low as \$5. This account can be linked to your checking or savings account, with monthly withdrawals invested automatically. Since the plan is tied to you and not your job, if you change jobs, the plan can

move with you. Here is a link to the plan specifics: www.whitehouse.gov/the-press-office/2014/01/28/fact-sheet-opportunity-all-securing-dignified-retirement-all-americans

If you have between, \$1,000 and \$3,000, then your options are a little greater and a good place to begin your search is Vanguard. This organization is the driving force behind low-fee, no-load investing. You can either visit their website www.vanguard.com or call 888-200-3109 for more information. Additionally, Vanguard also provides a fund selection guide. <https://investor.vanguard.com/mutual-funds/vanguard-fund-options>

Investment Choices Simple Usually Wins

At this point in your plan, you will need to decide where to invest your hard earned money and the best guidance I can offer is to follow **Occam's razor**. In its simplest form, this means the theory with the fewest variables has the best chance for success. If you're just starting out, a complex strategy of individual stocks and commodities might sound exciting, but could hold hidden surprises. I would recommend that you stay simple and think long-term. When you're saving for the future, it would be nice to have the money waiting for you and avoid what I call a Day 1 Mistake.

A **Day 1 Mistake** does not even look like a mistake; it's just part of a decision process where you think short-term rather than long-term. In the next paragraph, I'm going to talk about three styles of index funds, and while all excellent choices on their own; you must consider your age and compatibility with any other investments. The most successful investors view their average holding time for an investment as forever, so this means they have to get the selection correct on Day 1.

From the earlier description, you know that index and balanced funds represent a broad category of stocks and bonds that follow the market. This makes their ownership cost low and as they track the broader market they are naturally diversified. If you are investing for retirement and using a taxable account, this would be called a non-qualified account. However, if you're not saving for retirement this would be a traditional brokerage account. Both non-qualified and brokerage accounts are the same account type, and their names are interchangeable. For a taxable account, it's important to recognize that you want an investment that generates minimal capital gains. Capital gains are profits generated by the buying and selling of assets within a fund. This gain can come to you either as cash or it can be used to purchase additional shares in the fund, but either way the gain is taxable. Index funds generate almost no capital gains and very little dividends (these are taxable but can be at a lower rate), so they should be your primary investment choice. If you are in a tax-deferred account like an IRA, Roth or SEP, index funds work well, but you can also use a balanced low-fee fund, which can pay significant capital gains that can be reinvested in the fund to purchase additional shares.

Before we discuss which funds to use, it is important to establish the basic criteria for selecting an investment. Any investment you use must be **No Commission and Low-Fee** (.35% or less). The reason for this stipulation is the heavy impact commissions and fees have on your earnings, especially when making regular contributions. Furthermore, if tax efficiency is a consideration, then your choice narrows even further to index funds. There are thousands of funds available, from hundreds of different companies, and you can pick any you want as long as they are No Commission and Low-Fee.

For the purpose of this discussion, we are going to look at four types of funds from Vanguard (Target Date, Stock, Bond, and Balanced) that all meet the criteria of No Commission and Low-Fees. These four funds are designed to accommodate specific investment needs and can provide market returns. How much can you earn from these funds? In the first topic of section 3, "How to Compare Financial Assets," you will be shown how to bring up the growth of each fund at Moringstar.com in order to view each funds returns over the last ten years.

If you are younger and just starting to invest, and only have \$1,000 then your choice is simple, Vanguard's Target Date Fund. This is an index fund, which means it is diversified, low-cost and tax efficient. The fund is based on an allocation of Vanguard's Stock and Bond funds. What makes this fund well suited to a younger investor? Since the fund only requires an initial investment of \$1,000, choosing this fund means you can start sooner. Since these funds are designed to match your age, it would be advisable to call Vanguard or visit their web site.

<https://investor.vanguard.com/mutual-funds/vanguard-fund-options>

If you have \$3,000 to invest then your choices increase. An all stock fund like Vanguard's Total Stock Market (VTSMX) fund is terrific and can be used as your sole investment choice if you're in your twenties or

thirties. Why is this investment only suitable as your sole investment during your twenties and thirties? An all stock fund tends to experience higher highs and lower lows. During your younger years you probably will not have a tremendous amount of money in this fund, so the rise and fall in the value of your account will not be as bothersome. Additionally, when you're investing regularly, continuing to invest when the market is down will lead to bigger gains in later years. However, as you begin to reach the middle of your career you probably should start taking some of your investment money and begin adding it to a more conservative bond fund. An all bond fund like Vanguard's Total Bond Market (VBTLX) would be an appropriate choice to pair with the Total Stock Market fund. If you are working with Vanguard, I would call them and ask their advice on the appropriate percentage you should have in each fund.

There is a third option, which for many people could work better, a balanced fund like Vanguard's Balanced Index (VBINX) or Wellington (VWELX) depending on your account type. Both funds are allocated as 60% stocks and 40% bonds, with the primary difference being that Wellington is actively managed and can generate significant capital gains, making it best suited for a tax deferred account. Either fund can work as a single investment throughout your life, providing most of the growth of a stock fund, and much of the safety of a bond fund, in one investment.

If your goal were to invest your money and spend your time pursuing interesting adventures, then a balanced fund would be high on my list of choices. Regardless of which fund you choose, whether it is from Vanguard or another company, remember to have your investment account at regular intervals automatically withdraw the money from checking or savings, so that **Time and Compounding** can begin working for you as soon as possible.

Starting your kids off right

Let's suppose we shift the conversation just slightly from planning for ourselves to helping our kids, both can be long-term savings activities, but serving different purposes. You can use one of the funds mentioned above as the basis for the account, and open it with only the minimum required investment, in your child's name. This will be a custodial account under your control, not theirs. By doing this you can introduce them to the concepts explained in this book and provide them an opportunity to add extra money to their investment. Part of what we do as parents is to help our kids understand the concepts we did not grasp until later in life; and what better skill to introduce them too then saving and investing.

Bringing it Altogether

As promised, within the first section of the book we have established the ground work for a basic financial plan, identifying the type of accounts available and showing you a few solid investment strategies. Let's review your options.

Option 1: You are saving for a non-retirement goal

- Open a Brokerage account and invest regularly, using the concept of Dollar Cost Averaging, in a low fee, no commission, Index Fund for maximum tax efficiency.
- *Dollar Cost Averaging is based on the concept of investing money periodically over time as opposed to a single lump sum amount. Investing \$1,000 per week for ten weeks, as opposed to investing \$10,000 all at once, would be an example of Dollar Cost Averaging.*

Option 2: Your Company has a retirement plan

- Make sure you are at least contributing the sum, which will get you the full company matching amount. *To see the impact of your company's matching contribution there is a special "Company Match" field in the retirement planning worksheet.*
- Make sure you are investing in low fee, no commission, or no-load funds.
- Once you begin funding your plan, **never** borrow from your retirement account.
- If you cannot invest the recommended amount based on your age group, then any additional compensation you receive should be added to your contributions.
- One final item is to make sure you are taking full advantage of any "catch-up contributions." For 2015, the maximum contribution to a 401(k) is \$18,000; however, if you're 50 or older, you can increase your contribution by an extra \$6,000.

Option 3: Your Company does not have a retirement plan and you do not make a lot of money

- If you're just starting out and you have \$25 to start saving, then check out the myRA government sponsored savings. <https://myra.treasury.gov>

Option 4: Your Company does not have a retirement plan, but your income is higher.

- If you can save up to 15% of your pay, then your first choice is a Roth IRA. While you will not get a tax break for depositing into the account, the money at retirement will be tax-free.
- If you cannot take advantage of a Roth or have maxed out your Roth, then open a traditional IRA. It is possible to have both.
- To help decide which account type is best, check out this link at Vanguard. <https://investor.vanguard.com/ira/how-to-open-an-ira>
- If you have at least \$1,000, then checkout the Vanguard web site. Why Vanguard? Just Google "low cost mutual funds" and this company shows up the most. When Vanguard decided to start offering low-fee funds, no one else was working in this space. Even now, the vast majority of funds being marketed have high internal management fees, but as people's financial education increases, they are beginning to question whether funds with high fees perform better. The most

important thing to remember is you need all your money earning a return, not just most of it. To contact Vanguard either visit their website www.vanguard.com or call 888-200-3109.

Option 5: You are self-employed and you do not have a retirement plan.

- Seek out the help of a qualified Fee Paid Financial Advisor and discuss your options regarding an SEP Account which will allow you to save up to \$50,000 per year.

Saving for your future is important, and the steps you make today will pay dividends down the road. In this book, my goal has been very simple; give you a plan and motivate you to take action **realizing saving for the future is not Rocket Science, but a process**. Remember, saving even a \$100 a month will pay big returns down the road. While it's hard to take that first step, remember you're just along for the ride as **Time and Compounding** is doing all the hard work.

The second section of this book will cover some more advanced topics that relate to money and markets. These issues become more important if your desire to branch out from the simple plan outlined in the first section.

Thanks for allowing me to help get one of the most important parts of your life in order.

Larry Hennessey

Section 2 – Retirement Planning

Saving for Retirement Why it's Different Today

In your parents' generation, the retirement process looked like a three legged stool, a company pension, Social Security, and additional savings; with only the "savings" leg of the stool up to the individual. People I know that grew up with that system are enjoying their retirement today. So, what changed?

In short, people started living longer and becoming more mobile. When pensions first became available people only lived a handful of years after retirement and tended to work for the same company their entire life. As people started living longer, fewer companies continued to offer pensions to their employees, because the person could be retired for longer than they actually worked. Additionally, with a more mobile labor force people probably would not work for the same company for 35 years to get their maximum pension benefits.

This brings us to the era of the Defined Contribution Plan or as more commonly known, your 401(k) plan. While there are still technically three legs of income for retirement, the fact of the matter is one of the legs is decidedly different, because control has been transferred from the company to the individual. While the company controlled leg was not perfect it did have one important benefit as it took the employee's emotions out of the equation.

If we had a workforce with proper money management training the current system could be far superior to the original. People could make adjustments that allowed them to match their long term goals with their financial needs. However, what we have is a retirement system that is being managed by people which in all likelihood have had no training in economics, finance or money management. We allow them to set their own contribution rates and miss the full effect of company matching; we allow them to borrow from their plan and repay themselves at below market interest rates and finally they are allowed to invest in funds that are either too risky or whose fees are too high.

The current system is like tossing the car keys to your untrained sixteen year old and telling them to have a good time and not hit anything. As a parent, you would never do that, but that's exactly what's been done with the retirement system.

How Much Should You Save for Retirement

If you're using this information to plan for retirement, one of the most overused and least understood concepts is that of "Your Number," or how much you need to save for retirement. Without a frame of reference, what does "Your Number" mean? What the concept is trying to get across is how much you need to save to replace the percentage of income you will need to live on. For many people that could represent 50% of their last year's earnings. In the next table the savings rates are for single people; however, if you're married or have a partner then the amount saved by each person can be somewhat less than the rate for a single person.

I've devised a way about thinking about the savings rate formula. First, it's tied to your gross income and not a fixed amount. This way as your career advances and your income increases the actual amount of the contribution will increase as well, but the percentage will stay the same. Next, it's designed to provide 50% of your final year's income (based on a 4% withdrawal rate and a 7% average return) for the rest of your life. This will serve as the basis for your income in retirement. If you couple that with Social Security or another source of income, you have an idea of what your life style will be like.

Begin Saving Age	Years Until Retirement Age 67	Estimated Income	Savings Rate \$/Month	Amount Saved by Retirement
25	42	\$30,000	9% - \$225	\$881,000
35	32	\$36,500	16% - \$487	\$877,000
45	22	\$44,500	31% - \$1,150	\$911,000
55	12	\$54,300	75% - \$3,394	\$881,000

The first thing that you will notice is the percentages for 25 and 35 year olds at 9% and 16% are much less than those for people just a few years older. This is due to the effects of **time and compounding**, and this is why starting sooner, rather than later is important for success. At this point the twenty-five and thirty-five year olds should feel pretty good, so let's focus on the forty-five and fifty-five year olds, where the goal is still attainable as long as we put things in perspective.

Let's assume that both the later age groups began investing at an earlier age, but were saving just a few percent of their income, essentially under investing. Depending on when they started a typical 45-year-old could expect to have a balance around \$85,000 and the 55-year-old a balance around \$170,000. Really, this story can have a happy ending with a little focused and aggressive work.

Saving at Age	Years Until Retirement Age 70	Estimated Income	Starting Savings Rate \$/Month	Amount Saved as Retirement Begins
45	25	\$44,500	12% - \$445	\$955,000
55	15	\$54,300	13% - \$588	\$701,000
55	15	\$54,300	21% - \$950	\$772,000

Both groups should plan on working to age seventy in order to collect the maximum Social Security; and all major debt should be paid off before retirement. In the table below you'll see the forty-five-year-old has more time on their side, which will let compounding do some of the work for them and they can get by with a lower savings rate. However, with the higher projected account balance for the 55-year-olds, a little focused saving will enable them to "catch-up." As with prior examples, we are using the long term average of 7% for market gains. You'll see that both the 45-year-old and the 55-year-old (which saved at 21%) have higher balances, which are equal to slightly more than 50% of their final year's earnings. The 55-year-old that saved only 13% of their income has saved enough to replace approximately 44% of their final year's earnings.

Saving and Income Retirement Spreadsheet

Included with this book is a retirement planning worksheet. It's available on our website <http://look-forward.weebly.com/planning-software.html>. **The password to open the worksheet is: your-future.** This is an interactive worksheet, which allows you to look into your future and get examine of your future retirement savings and income.

By making this worksheet interactive, you can enter your information, thus making it personal. As an example, we've created a profile of a 24-year-old that is saving 9% of their salary starting January 2015. The entire amount for the year is invested on January 1st. You could do this or you could make twelve monthly investments as long as the entire amount is invested during the year. We are using a retirement age of 67.

The first section is a summary of the results after saving for 42 years. The next two sections will show the progress along the way, and help you determine what kind of retirement income you can expect. As with any future looking tool, you are encouraged not to go too crazy with the yearly gains or your salary increases, unless they are justified. The more honest you are with this worksheet, the more accurate the answers will match reality. The goal of this sheet is for you to be able to save enough to generate 50% of your final year's earnings on an ongoing basis. The example here generated 58% of earnings.

Retirement Planning Worksheet	
Yearly Earnings	\$45,000
Starting Year	2014
Starting Age (min age 20)	24
Retirement Age (max age 70)	67
Amount to invest each year	9.00%
Yearly Salary Increase	2.00%
Average Fund Gain per year	7.00%
Employer Matching (optional)	0%
Initial Investment (catch up)	\$10,000
Yearly Mutual Fund Fees	0.18%
Portfolio fees over investing life	\$231,374
Withdrawal Rate	4.00%
Inflation Rate	2.00%
Savings achieved when retirement begins	\$1,497,897
Estimated Final Year's Earnings	\$101,349
First Year's Withdrawal Retirement Account	\$58,329
Percentage of Final Year's Earnings	58%

When Retirement Arrives Withdrawal Rate

In retirement planning, the concept of a Withdrawal Rate is important. This is how much you can safely withdraw and have interest, dividends and gains offset your withdrawals. Based on the performance of Stocks and Bonds thirty years ago, the original withdrawal rate of 4% was thought to be safe. Meaning you could safely withdraw 4% from your account without putting a big dent in your account balance, because dividends and interest payments from your Stocks and Bonds would equal your withdrawal amount and keep you at a constant level. While the 4% withdrawal is a good starting point, the conversation has shifted, because Dividends and Bond Interest rates have declined. Something else that will factor into the withdrawal rate is that at age 70½ you will reach the age for Required Minimum Distributions. As a rule, RMD's effect only tax deferred savings. By consulting the IRS Uniform Distribution Table and the company holding your retirement savings, it will be possible to determine the exact amount of money to withdraw each year.

When looking at investments, it's important to look beyond the top line number, which is the share price of your stock or mutual fund, but look at the bottom line, which is the interest, dividends and capital gains your investments generate. Now you see why low fees are important; as these revenue streams are used to pay the internal fees on your funds. The higher the fees, the less money there is for you. Your goal (especially in the early stages of retirement) is to stay flexible and match your withdrawals to the revenue streams generated by your funds. If you are in the later stages of retirement, go crazy and spend what you want, you've worked hard and you should enjoy your money.

Social Security

Entire books have been written on the best ways to manage and collect Social Security, so that makes this topic well beyond the scope of this book. However, there a couple of things you should know.

The best place to begin is on the Social Security web site www.socialsecurity.gov and log into your account. Here is a link to a document on their site that reviews the different options and when you can begin collecting Social Security www.socialsecurity.gov/pubs/EN-05-10147.pdf .

As with fee paid Financial Advisors, there are Fee Paid Social Security Advisors and depending on what you learn from the Social Security web site, it may be worth contacting one.

Your goal in reviewing the Social Security Information is to determine what your monthly income will be, so that you can combine that with your retirement savings and begin to plan your budget. Granted if you are twenty-five years old this topic is of little interest today, but in a few decades, this topic will be important to you.

How to Compare Financial Assets Beyond Simple

Throughout the book, I have advised that “simple” wins, and I believe that unless you want to increase your knowledge and workload you’re better off keeping it simple. Think of it this way, the simple strategy will get you at least 80% of the market’s gains with very little effort. Getting the market’s last 20% will require careful planning, effort and increased risk.

If you plan on trading individual stocks this requires more information and in that case you will need access to real-time data. Many of the on-line brokerage services have good tools, but if you’re going to be a serious trader, you’ll need access to at least Level 2 or Bloomberg data, but access to this data is not free. If you’re looking to invest in individual stocks, on the free side, Yahoo Finance <http://finance.yahoo.com> has closing price data on stocks and mutual funds back to 1980. Additionally, a good source of information is the Value Line Survey, which is available at many public libraries

If you are going to stick with mutual funds, the best source I’ve found is Morningstar. Along with having very good investing information they will show you historical data with growth calculated in the charts. This is fantastic as you can go back and look how the fund performed since its inception. With accurate long term results, you can map a fund’s performance to points in history and discover how it performed during the really good and really bad times, allowing you to see if the fund meets your risk tolerance. Below is a list of funds along with background information.

Funds	Ticker Symbol	Year Started	Style
Vanguard S&P 500	VFINX	1976	Large Blend
Vanguard Total Stock Market	VTSMX	1992	Large Blend
Vanguard Wellington	VWELX	1929	Large Value
Fidelity Magellan	FMAGX	1963	Large Cap Growth
Gabelli Small Cap Growth	GABSX	1991	Small Blend

The Vanguard S&P 500 fund is the personal favorite of Warren Buffett and he has publicly stated his support for this fund on more than one occasion. John Bogle from Vanguard is credited with starting the index fund style of investing and his favorite fund is the Total Stock Market fund. Wellington Management is one of the oldest funds in the country dating back to 1929 and closely matches the teachings of famed investor Benjamin Graham. Famed investment manager Peter Lynch managed fidelity’s Magellan fund. During his tenure at Fidelity, he had a streak of 20 plus years with an average return of 29%, which means that every \$1,000 invested earned \$28,000. Gabelli Small Cap Growth is run by Mario Gabelli one of the best fund managers and stock pickers on Wall Street. By the end of this section, you will be able to perform your own research on these funds.

Since almost every investing strategy uses the S&P 500 as the benchmark to beat, I would as well. The S&P 500 is used because it is an index, and does not include any fund biases that a more traditional mutual fund will have. So even if I am comparing a diverse investment strategy, I will compare it to an equal dollar value of the S&P 500.

If you want to know how to compare investments this next section will walk you through the steps I use.

Step 1 - Go to Google Finance
www.google.com/finance

Step 2 – In the Search Finance box at the top of the page, you should enter VFINX for the Vanguard S&P 500 Fund. This fund tracks the S&P 500, but unlike the actual S&P 500, it does not reflect dividends paid by its holdings, so its performance data will be within a few dollars of the actual S&P 500.

The first thing you will see is the last closing price for this fund. Below that will be an input box that says Enter Ticker Symbol (this is useful if you want to compare two or more different stocks or mutual funds). Below that you will see the words Zoom: 1m, 3m, 6m, YTD, 1y, 5y, 10y and All. Clicking on the time period will enable the graph to show longer periods of time. And finally, you will see the performance chart for this fund.

Scroll down a bit and you will see a section labeled **Description**, which will provide a brief description of the fund. The next section is labeled Risk and requires your attention. The information in this section gives you clues as to how a fund will react, when the market moves.

We are going to focus on just two performance details for this exercise Beta and Standard Deviation.

Beta looks at a fund's volatility. The quick way to think about this is if the market had a beta of 1 and your fund had a beta of .9 for every 1% the market moves, your fund would move .9%. It turns out the VFINX has a beta of 1, and that makes sense, as the S&P 500 is the market benchmark.

Standard Deviation looks at how wide, or spread out, a bell curve is with each standard deviation telling how far the fund moves. A higher number means that during market moves the fund can deviate from its long term average by a wider amount. Vanguard's VFINX has a standard deviation of 8.22.

The web site Investopedia has a complete financial terms dictionary, which is excellent, and can be used to look up the other statistical indicators listed here. www.investopedia.com/dictionary

On the right hand side of the Google Finance page you will see a section labeled **Performance**. This area gives you a quick historical overview of performance and best and worst three month returns. For this fund, its worst three-month return is -29.64%; this means that for every \$10,000 you have invested you would have short term losses of \$2,964. You might think that's not too bad, but now imagine you have \$500,000 in this fund and that short term loss is almost \$150,000.

As a comparison I've listed the statistics for Vanguard's Wellington (VWELX). Notice it is much less volatile than the S&P 500. This means it will not drop as much during a down-turn, but it will also not rise as much in a sustained market advance.

Fund	Beta	Standard Deviation	Worst 3 Month Return
Vanguard S&P 500 – VFINX	1.00	8.22	-29.64
Vanguard Wellington - VWELX	.87	5.09	-20.35

One last thing I want to show you is the link right below the performance data, titled **Trailing returns details on Morningstar**. If you click that link, you will be taken directly to the Morningstar page for VFINX. This will show you detailed information on this fund's historical returns. At first, the page can look a little overwhelming, but it's really quite nicely organized.

When you come over from Google, you will be on the **Performance** tab, which will show you historical performance data. Before any of the other tabs should be accessed, you should click on the word **Quote** that will be three positions to the left of **Performance**. Once you click on **Quote**, all the other tabs will now be able to reference the name of the fund sent over from Google Finance. All the tabs in Morningstar contain a wealth of information,

but the Fund Analysis and Stewardship tabs require a paid subscription. Morningstar will give you a 14-day trial, which is well worth it (who can argue with free) and they now have an option for monthly access as well.

Next, click on the **Chart** page. My favorite capability of the **Chart** page is it will calculate the growth of \$10,000 over a user defined period. (Note: make sure the performance drop down indicator located above the starting date range is set to Growth.) You will see that along with the Vanguard's S&P 500 fund, the site will load similar funds for comparison, but for our purposes we want to delete these funds. If you "mouse-over" the funds you want to delete you will see an "X" appear to remove these funds from the display. Once that is done, you will see an input box just above the graph with the words "Compare to Symbol". It's at this point you can enter additional ticker symbols, although beyond five the graphs get a little confusing. This is where we are going to enter VWELX for Vanguard's Wellington. What you'll now see is a very nice overlay of VFINX and VWELX and how they would have grown over the last decade. For a different performance perspective, you can change the reference time on the right hand side. The custom option will allow you to see how a fund performed at a specific period in time by entering your own starting and ending dates on the left side of the graph. Since 2008, there are a few interesting dates to look at, such as 3/16/2008 Bear Sterns collapse, or the 9/15/2008 Lehman Brothers failure, where you can see a fund's reaction to these events.

There a couple of other capabilities on the Morningstar site that I want to bring to your attention. At the very top of the screen is an input box titled "**Quote.**" You can enter any other ticker symbol there and bring up entirely new information. If two funds have a different historical data, the fund with less historical information should always be your baseline fund and entered first. In our example, VFINX dates back to 1976, whereas VWELX dates back to 1929, so this is why I entered VFINX first. Next, you can compare dissimilar assets like mutual funds to stocks, as long as the mutual fund is entered first. For example compare GABSX to AAPL (Apple), this allows you to play interesting what-if games.

When the Market Drops

When you invest in Financial Assets, recessions are just part of the deal; how they affect you really depends on how well you're prepared, and how well you understand your plan. The goal is to have an investment with a history of being able to "correct itself" after a drop; this will help keep you calm when everyone else is panicking. Additionally, if you are more interested in how to avoid the pain there is an easy path to follow. Do not invest in exotic or high-risk assets that people constantly trade; instead find a good balanced mutual fund and keep contributing to your retirement account. When the market is down, it's like a sale at the mall, where you can get your favorite stuff at a big discount.

Why is it that markets move so dramatically? It really has to do with globalization and the speed of information. You can trade in different asset classes, on a 24-hour basis, in virtually every country on the planet, and when you couple that with real time news from any city, it's not surprising how fast markets move.

If you look back at the stock market crash of 1929, it began in late October, but it took almost three years for the market to hit bottom. In large part, this was due to how slowly information moved. The Black Monday Crash in 1987 took a day to play out, and the market dropped 22%. The flash crash on May 6th started at 2:30pm and was done and over by 3:30pm. As information moves faster your ability to get out of the way decreases, and in cases like this, the best plan was to do nothing. People that sold into the Flash Crash locked in their losses, but those of us that did nothing did not know what happened until the nightly news or the next day's paper. And with the market bouncing back to pre-flash crash levels by its 4pm closing time, for those of us that did nothing, the entire experience was a non-event.

Another reason why market drops are so large is the concept of leverage or borrowed money. If you put up \$10,000 to buy a stock and your broker lends you \$90,000, you can now purchase \$100,000 worth of that stock. However, you are leveraged 9 to 1, meaning that for every dollar you have invested you've borrowed 9. This is great on the way up, as profits are almost unlimited. However, if the stock drops 10%, which is the equivalent of your initial investment, the broker issues a Margin Call, and you need to either put up more money or sell your shares. Since you're probably not alone in playing this game, and a call goes out to many people simultaneously. In the end, if you all decided to sell at once, the stock market gets trounced, and a small drop is turned into a huge event.

After a drop, markets have always recovered, sometimes more quickly than at other times. The people that really make out well are the folks that keep investing using the concept of Dollar Cost Averaging. The people that panic and sell are just handing future profits to the folks that remained calm.

The Impact of Inflation on Cash

Many people do not make the connection between inflation and cash. Simply stated inflation erodes the purchasing power of your money. Typically inflation in the country runs around 2%, but certain items like Health Care and College Tuition exceed that number. This is why if you kept the money in a low-yielding savings account for the next 25 to 30 years its purchasing power would be half of what it is today. Today's investing landscape can be classified by the acronym TINA; There Is No Alternative, which means knowing where and how to invest is important, if you want to keep ahead of inflation.

This table shows the impact of inflation on your purchasing power if the money were kept in a low yielding savings account. While it is very important to keep a portion of savings in cash, keeping all your money there would pose a risk that most people would not realize.

Average Inflation 2%	Inflation Adjusted Value \$100,000	Average Inflation 2.5%	Inflation Adjusted Value \$100,000
10 years	\$82,000	10 years	\$78,100
20 years	\$67,300	20 years	\$61,000
30 years	\$55,200	30 years	\$47,700
40 years	\$45,300	40 years	\$37,200

Looking into the Future with Microsoft Excel

Part of the free software that comes with this book is a Future Value calculator. It's available on our website <http://look-forward.weebly.com/planning-software.html>. **The password to open the worksheet is: your-future.** The Future Value Calculator can show the future value of an investment or help to predict what something will cost in the future.

For example, if you wanted to know the future value of saving \$2,000 per year, for 10 years, at 7%, you can enter the following information. In the interest rate field type 7, in number of year's type 10, in periodic investment type 2000, Starting Amount type 0. The system will now display \$29,567, the value of your investment.

Future Value Calculator	
Interest Rate:	7.00%
Number of Years in the future:	10
Periodic Investment Per Year:	\$2,000
Starting Amount:	0
Value in Number of Years ->	\$29,567
Inflation Calculator:	
Inflation Rate	2.50%
Number of Years to look back:	30
Current Price:	\$40,000
What an item cost in the past:	\$19,070

Learning more about Economics and Finance

While there are numerous good books on the market, many require that you have a working understanding of economics, statistics or finance, and commit weeks to reading them. Before the internet, information was limited, but today it's an entirely different story.

I know many people watch Financial TV from CNBC, Bloomberg, MSNBC and Fox. While there is some news between the headlines, much of it is directed toward serving a particular need or agenda. Early on during my return to college, I was tasked with writing a paper on the concept of Asymmetric Information. Wow, was that an eye opener. By definition, Asymmetric Information occurs when not all parties in a transaction have the same information. When one party has more information, they gain an advantage at everyone else's expense. I came to realize that much of the information being given was designed to move the market. The big money managers in the market make money when the market goes up and when the market goes down, so they have a vested interest in making the market move.

After the 2008 recession and market roller coaster, the main stream media turned me off. What I wanted was a clear statement about what went wrong, and how and when it would be fixed. What I did not know until a few years later, was that the 2008 recession was different from prior recessions and the "experts" were searching for answers in "real time." Being frustrated with the lack of answers is what moved me towards economics.

Before I could understand what happened in 2008, I needed to understand the people and ideas that brought us to that event. Once I obtained a clear idea of what happened, I decided to redirect my focus to the people who did well during the chaos, and first on my list was Warren Buffett.

Warren Buffett has attained "Rock Star" status in the world of finance and investing. What makes him so good? Key to his strength as an investor, Buffett has a strong financial background that he obtained while at Columbia University's School of Business where he studied under famed investor Benjamin Graham. When most investors research a company, they use generally available information like a company's balance sheet and income statement. However, Buffett tries to understand how a company works and what makes it superior to competitors, not just today, but ten years down the road. As he puts it, "In business, I look for economic castles protected by moats." He combines the castle and moat theory with another; he also only invests in things he understands and this enables him to see how things interconnect. During the dot-com boom of the late nineties, he avoided the high-tech space entirely for which he took a great deal of criticism. In Buffett's way of thinking, internet startups with sky-high valuations did not pass the castles and moats test, so he decided to sit this one out. Ultimately, he was praised for sticking to his position, when the technology sector crashed in 2001.

Is it possible to learn what Warren Buffett learned? Benjamin Graham, his professor at Columbia, published the fundamental theories of investing decades ago in a book titled *The Intelligent Investor*. If you are truly interested in understanding the fundamentals of investing, I would recommend Mr. Graham's book.

The other person I started to pay attention to was John Bogle, from Vanguard. His competitors in the Financial Industry are not among his biggest fans, because the fees on Vanguard funds are much lower than the industry average. I discovered that Vanguard is not a publicly traded company, so there are no shareholders to serve, which is how the company keeps its fees so low.

When Bogle talks, you need to pay careful attention, as his years of experience help connect the dots to a much larger picture. One afternoon, he was doing an interview and made a seemingly innocent statement. He believed that by the end of the decade, which started in 2010, there would be at least one large drop and rebound in the market. Here's what fascinated me. Every other person on TV either was either predicting the market would go

up forever, or crash to levels last seen during the Dark Ages; if the Dark Ages had a stock market. What did he know?

It took me a while to find the answer and it was elegant in its simplicity. Since 1870, there has been at least one recession and market drop each decade, sometimes the two did not go hand-in-hand. Mr. Bogle was simply stating the obvious. This in turn gets you to one of the core fundamentals of economics; everything always returns to the mean. A few good years will be followed by a few lean years to return markets to their long term average. The other part of his message is that if you cannot avoid the big drops in the market, then buy and hold a fund you believe in. He has stated publicly that his average holding time for a fund is forever and temporary gains and losses are just normal. He knows that over the long term, the stock market has more up days than down, and he will make money.

Another source I like for financial news is Barry Ritholtz's The Big Picture Blog. <http://www.ritholtz.com/blog> Barry and his staff find interesting articles and news from around the web and present them in an unbiased form.

Finally, if you are so inclined, you can view lectures from top colleges around the country on many different topics, not just economics. If you Google "opencourseware," you can see actual class lectures, and hear real discussions on current topics. If your goal is knowledge, this is a great way to increase yours.

Another of my favorite sites is Kahn Academy - www.khanacademy.org. I've spent hours at this site sharpening my algebra and calculus skills. The interesting fact is that Sal Kahn's story could be viewed as accidental. As the story goes, after college he was working as an investment banker in the San Francisco area, and had nephews back home that needed help with math. Sal created a couple of YouTube lessons and posted them for his nephews. Because YouTube is an open community, the audience went far beyond them and kids from around the country began viewing his work. First came the words of praise from countless students struggling with math, and then came the requests for additional lessons, and as they say the rest is history. I believe Kahn Academy is one of the largest not-for-profit-learning sites in the world. The site's initial funding originally came from Bill Gates at Microsoft, Larry Page and Sergey Brin at Google. All video on the site is designed to be played on a mobile phone, which is the primary computing device for the majority of the world's population.

If you're looking for his courses on economics, login to the site and you can find them by choosing the Subjects drop down link at the top of the page. There is another plus to this site - for parents of kids trying to understand math, Sal is a far better math tutor than most of us could hope to be.

Investing Topics

Timing the Market – This sounds much easier said than done. Just be aware that timing the market requires two actions, when to sell what you have and when to rebuy it, or vice-versa. In the case of trying to time a market downturn, getting only one of the moves right will cost you much more than if you just rode out the downturn. What usually happens is that people’s emotions get the better of them and they buy at the market top and sell at the market bottom, the exact opposite of what they should do. Why is that? Behavioral Economists have discovered how people respond to greed and fear. When the stock market is advancing rapidly, people are afraid of missing out, it’s like not being part of a great party, so they rush in as opposed to treading carefully; this is the greed part. When the market starts to drop, studies have found that losses make people twice as unhappy as gains, and this causes them to hold on to an investment too long (hoping it will come back) and by the time they sell the market is pretty close to bottoming, thus locking in their losses. I have also seen other interesting studies that show that missing the top 10 or 20 days over your investing career will dramatically lower your overall returns. The moral of the story is, it’s usually better to remain calm and do nothing, than trying to jump in and out of the market.

Dollar Cost Averaging – Is a successful long term strategy because it removes your emotions from the equation. You do not try to time the market, buy the same amount each week or month. Sometimes you buy a few less shares as the market will be up and when the market is down you will buy a few more. If you are investing through your company’s savings plan at work this is what you’re doing without even being aware. If you were to ever receive a sizeable cash payment, you would want to be aware of this method of investing money.

Fee Paid Financial Advisor -- If you’re looking for a fee paid advisor this is a starting point, but as with any research more options are always better. To begin your search start here: www.napfa.org. Remember, you are looking for an advisor that is working on a Fiduciary Code of Conduct, and who will provide advice on an hourly basis, and recommends low-fee (approximately .35%) and no-load funds. In your search please beware of companies offering no-load funds, with fees upwards of 1% as they are not that good a deal.

Financial Advisors – Over the years, I have worked with three different financial advisors from nationally known companies, and none could provide me the answers I was looking for. One thing I did discover though is they all did a good job of **not** explaining the impact of their fees on my long-term financial goals. I think back in utter amazement that they had funds at their disposal, which could benefit my long term goals, but instead they directed me to commission based, high-fee funds. That one realization was probably my biggest surprise and my biggest disappointment when dealing with a financial advisor.

However, what if you do need help or feel more comfortable dealing with a financial advisor? You have a couple of options. Find a fee-based financial advisor that works on a **Fiduciary** basis as opposed to one that works by a **Suitability code of conduct**; being aware of the difference can impact your long term success. Fiduciary-based advisors put your interests above their own when advising on investment choices. Advisors who operate based on Suitability are only required to make “suitable” investment recommendations. This allows their interests to compete with yours. Regardless of which type of advisor you choose, require they only offer you No-Load (no commission), Low Fee funds. When you do not have a lot of money, the last thing you need is to pay a 5% commission to invest your money.

Currency Market – All major economies have their own currency and the value of that currency affects trade around the world. The U.S. has the Dollar, Canadians have the Canadian Dollar, Europeans have the Euro, Russians have the Ruble, Japanese have the Yen, Chinese have the Yuan, Brazilians have the Real, Mexico has the Peso and the list goes on. In a global economy, if your currency is cheaper than your neighbor’s is, production of goods tends to shift to the country with the most favorable currency. On the flip side, people with the cheaper currency tend to pay more for anything they import. All you need to know here is that currency value around the world affects you.

Nominal Returns – This is when an investment is sold at a future date and inflation is not taken into consideration. Here’s an example. In 2000, you invest \$10,000 into Stock A. In 2010, Stock A is worth \$20,000. The Nominal Gain is 100%.

Real Returns – Are gains (minus) inflation. If inflation averages 2.5% per year, then every 10 years you must lower your returns by at least 25%. Using the above example, the inflation adjusted return for this investment is $\$20,000 \times .25 = \$5,000$. This means that the real purchasing power of that \$20,000 in 2010 is the same as \$15,000 in 2000. So, the Real Return for this investment is not 100%, but really 50%. Think of it this way - real returns are what you take to the grocery store. Nominal returns are what you tell your friends.

Occam’s razor – The hypothesis with the fewest assumptions is usually your best choice. I know this is not directly related to investing, but it fits so well that I did not want to leave it out. You can relate this back to investing by choosing a balanced fund or just buying the entire market in an index fund if your goal is to capture a majority of the markets gains with minimal effort.

Bull Market – This is a term used to describe a sustained, long-term rally in stocks.

Market Correction – This is a term used to describe a drop of between 10% and 20% in the market or a specific sector of the market.

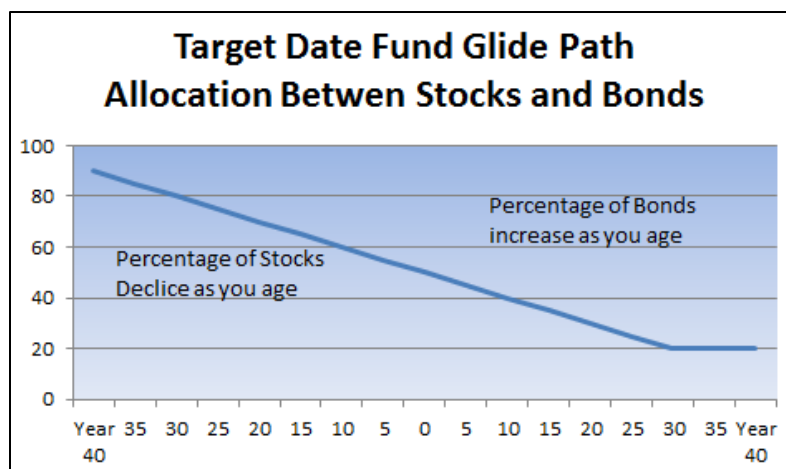
Bear Market Correction – This is a term used to describe a drop of greater than 20% in the market or a specific sector of the market.

Basis Point – This is a fraction of a percent. In much the same way 100 pennies comprise a dollar, 100 basis points comprise 1%. So if interest rates change by 10 basis points it means they changed by 1/10 of a percent. Basis Points are just an easier and more precise way to talk about interest rates.

Annuity -- This is a financial asset where the stock market and an insurance policy meet. Think of it as a way to insure a future income stream. In exchange for an upfront payment or series of smaller payments over time, you can be guaranteed an income. Like any insurance product, they have attachments called Riders, which allow you to pay for options. Riders cover what happens to your annuity if you pass on prematurely, or allow them to increase your yearly pay-out to compensate inflation. The upside to an annuity is that you hand them your money and they take care of all the behind-the-scenes investing details. The downside is you hand them, your money and if something happens to them getting your money back and your income stream can be an issue.

When researching annuities the two most common types you will encounter are “fixed” and “variable”. A fixed annuity can provide a predetermined income stream, which with the proper rider; can be increased each year to offset the impact of inflation. A variable annuity is just as it sounds; it’s variable, because the return rate is tied to the stock and bond markets. Typically, variable annuities will provide some amount of predetermined income, but have the upside potential of generating additional gains as a result of the performance of their underlying assets. If you’re going to insure your future using an annuity, it pays to shop around comparing the different types and fees.

Target Date Fund -- If you look back to the description of a Balanced Fund you will have a good starting point. Like a Balanced Fund, they are comprised of many asset classes, but they have one notable difference, they shift with time. In the picture, a downward sloping line that decreases your stock holding as your Target Retirement Date approaches divides the picture in this section (this is how the fund gets its name). You can choose these funds so that they coincide with your expected retirement date. When you’re young the funds invest mostly in stocks. As you can see in this chart when your 35 years away from retirement (zero on the time line equals retirement) your allocation is 90% stocks and 10% bonds. As you move through life your allocation changes automatically to more bonds and less stocks. In theory, that sounds good. But as baseball legend, Yogi Berra once said, “In theory, there is no difference between theory and practice. In practice there is.”



Before I tell you what makes me a little uncomfortable about these funds first let me tell you what I like about them. In a relationship, investing knowledge is not usually uniform between both parties; meaning one person drives the investment decisions and the other person is happy to watch. If the person doing the driving is a male this can be a problem, as women tend to outlive men. As I get older, I see this situation coming up on a more regular basis where the person that was watching must now do the driving.

If the person who was driving the investment decisions had separate stock and bond accounts that require rebalancing and these funds do not get rebalanced, the accounts can end up out of balance with a much higher percentage of stocks at just the wrong time. As opposed to your twenties when time is your friend and a market readjustment is no big deal, if this happens in your eighties and the mix is heavily weighted toward stocks it will be less enjoyable. Secondly, Target Date Funds are very easy to explain to people just starting out in their career. I think of these funds like chewable vitamins; when you give kids vitamins you do not explain what's in them - you just tell them they will make them grow up big and strong. That's the same basic concept here.

Now, here's my concern. Suppose you're in your late twenties or early thirties and the end of the rainbow is a very, very long time away. Last century it was very common for people to have seen both the Wright Brothers first flight and Neil Armstrong walking on the moon, as they were only 66 years apart. The point here is if you're twenty-five, you will see the most amazing life altering changes in the next few decades. Case in point, I needed a medical procedure that was first invented a few decades earlier. Before that procedure was developed there was no cure. The day my procedure was done, the surgeon did mine in the morning, stopped for lunch, and did a second one that afternoon. What did not exist thirty-five years earlier was now commonplace. Therefore, if you are in good health and do all the "right" things you should expect to live longer than the predicted average age.

Target Date Funds operate on something called a glide path, and just like with a plane, it is designed to get you to the end of your journey. The problem is not everyone's trip ends at the same time. A friend's mother lived to 105, my friend is heading toward 90 and she tells me that in her neighborhood there are many women in their 90s that lead an active life style.

In case you're wondering how I ended up researching this style of fund, my conversation with Bryanne actually started out when she asked if putting all her savings in a Target Date Fund was a good idea. My first thought revolved around longevity. Just to be sure I was not missing something on my longevity observation, I call the investment company that was offering the Target Date Fund she was looking at and asked the following question. "As longevity increases is your company having any internal discussions that people invested in this fund might actually outlive their money?" His answer was no. This did not surprise me. Not living beyond your nineties may not be a problem for the vast majority of my generation, but it might be for yours. The Target Date Funds are

looking at a broad range of people to determine mortality rates. Mathematically this makes sense, but this is where investing gets truly personal, as your family history, life style and a bunch of other factors play into how long you will be here.

In a Target Date Fund, they set the percentage of Bonds to match your age. In your 70's they set your allocation to 30% stocks and 70% bonds. In your 80s they further adjust the mix to 20% stocks and 80% bonds. When I ran an analysis on a typical target date fund, I found that the declining income from the higher percentage of bonds would really begin to kick into high gear around your mid-80s. If you are part of the ever increasing group of people that will live to 100 and beyond this issue of declining income becomes more important.

So what's the solution? I agree with the industry's basic premise that you should have a higher percentage of bonds as you age, but I'm not convinced that an allocation of 20% stocks and 80% bonds is the answer. I appreciate that a bunch of really smart people devised these plans, but I would love to know how many of them would put their retirement income in a 20/80 allocation if they were going to live to 105 like my friend's mother, and deal with a couple of decades of declining income. I came across an interesting article on the web from AARP that addresses this very issue. <http://blog.aarp.org/2014/04/01/more-investors-choosing-target-date-funds-for-retirement-savings>

If you believe the simplicity and automation of a Target Date Fund works for you, then let me give you a couple of ideas to improve your journey. If the money you've invested is in a tax deferred account like an IRA, Roth IRA or SEP, then you should be able to move the money to a different Target Date Fund just like any mutual fund (check to make sure the investment company will permit this and get it in writing). For example, for my friend they were advising her to choose the 2045 Target Date Fund. In 2045 that fund would have an allocation of 50% stocks and 50% bonds, which is fine for a person just entering retirement. When she reached her early seventies, if this money is in a tax deferred account, she could either move all of it or a portion to a 2065 fund, which would bump her allocation back towards say 50% stocks and 50% bonds. If she tried this in a taxable account, the resulting tax bill would not be pleasant. If your Target Date Fund is going to be in a taxable account you may want to consider a fund a few years past your target retirement date, to keep the allocation percentage of stocks a little higher as you enter the last stage of your retirement.

Company Stock – If you work for a large company and have the option of investing in company stock, this may be appropriate for a portion of your retirement savings, but certainly not all. While there have been many shining success stories of high tech start-ups that made people rich beyond their dreams, the 2008 recession taught people all that glitters is not gold as many were wiped out when their company went bankrupt or their stock dropped in value. Like any investment, company stock needs to be viewed with a critical eye.

A Few Interesting Thoughts

This section could go on for many pages as economic thought means many different things. Like my friend, I also sought the advice from people that were older and wiser, wanting to know what they learned along the way. It's a shame that younger people tend not to take seriously the lessons from folks that came before them, as these folks know where most of the stumbling blocks reside. What follows next are a couple of those thoughts.

I have been fortunate to work with a diverse group of people and have learned a few things along the way regarding how they think about money and investing. In my thirties, I worked with people that made really big money and for the most part, they spent really big money. When you're young and making big money many people just waste it, and have nothing to show for it. The funny thing about money is it tends to hang out where it's respected and treated well.

One of my favorite phrases came from the professor that taught Money and Banking. He would say, "It's all about yield." Yield is simply the "interest" earned on money. He would try to get his young students to understand that risk-free, tax-free returns are the best. And where can you get risk-free and tax-free returns on the normal household bills we all pay every day. The professor went on to elaborate that whenever a bill is paid and a fee avoided, take advantage of the opportunity. Think of it this way, if you add up all the \$50 fees that can be saved over a year, soon its real money.

This point flows nicely into banking and charge cards, where there are two types of customers. There are those that pay fees, and those that don't. People that have a handle on their finances are able to avoid late fees, overdraft and miscellaneous fees, which banks and credit card companies charge. These fees help them to cover the percentage of their customer base that stops paying altogether. Additionally, customers that can manage their credit wisely get cash back, Airline Miles, or free hotel stays. Those free "perks" come to the recipient completely tax free because they are viewed as a rebate. Imagine if your next vacation was free? If you're not sure of the "perks" associated with your card, call your credit card company and ask. Since most credit card companies have many different cards with different reward levels, switch your card to one without a yearly fee and the rewards that work best for you. Then charge everything in your life and pay it off at the end of the month, making sure you NEVER carry a credit card balance.

Probability vs. Possibility – Many people think they are the same, but they are not even close. Probability can be calculated and Possibility cannot be. One of my favorite examples of probability is the odds that someone will win the lottery. Here's a quick formula to calculate probability. If most of the adults in the country (150,000,000) buys a lottery ticket what are your odds of winning. $1/150,000,000 = .000000007$.

Probability can also, be extended to basic decision making. Whenever you have to make a decision in which past experience cannot be your guide, see if you can determine the base rate for an outcome and then stick with the base rate. For example, let's say in a neighborhood of 100, people 70% are engineers and 30% are accountants, and you are asked to pick which people are engineers. You can either attempt to use your powers of observation and deduce which people are engineers and which are accountants, or you can just say that everyone is an engineer and you are guaranteed to be correct 70% of the time. Using the base rate method is far better than trying to deduce the correct answer when the percentages are this obvious.

Going along on the same line of thinking, one of the basic theories of investing says, "Buy the entire market" showing how probability works in investing. Over time, stocks advance more than they decline, I remember reading that on average the stock market is up 60% of the time. This would mean that instead of trying to pick winners and losers, simply buy the entire market (using an index fund) and statistically you will have a 10% advantage with zero effort as compared with the normal 50/50 coin flipping odds. If you could walk into any Casino with a 10% advantage over the "house," they would not call it gambling.

Appendix

The Thank You List

To reach the point where I could write a book like this required a lot of help along the way. And it's now time to let these people know their help was appreciated.

My Professors

These three men were at the core of the Economics department of my local State University. Some of the best times I had were either before or after class where we would discuss all manner of things economic and it was during those conversations that much of my knowledge and affinity for economics and investing developed.

Dr. Pachis, who taught Money and Banking among other things, was the first person I remember saying that the 2008 market crash was attributable to a liquidity crisis that caught everyone by surprise.

Dr. Mann was my statistics professor, and without a doubt, the best math professor I would ever encounter, and was the one that convinced me that I really should take the time to understand how markets function. I owe him a lot for that advice. Then there was Dr. Parzych, who taught Micro Economics, and Government and Business, one of the most interesting classes I have taken. Sadly, Dr. Parzych passed away shortly after graduation, and I never got to spend more time with him.

Maria My lab partner

It must have been a couple of days into one of my early classes with Dr. Pachis, that I realized economics contained more math than I anticipated, and I quickly realized that my great and glorious return to college was in trouble. One of the benefits of being older is that you know when you're in trouble, but also know enough to look for help. In my case, "help" sat in the row in front of me. Maria was a natural at math and could frame it for me in the context of our class work. I would tell her that she may be one of the first people in history that did teach an old dog a new trick, and without her help in that first year; I might not have made it.

Bryanne and why this conversation was different

Over the years, I have had numerous conversations with people about money, markets, and investing. The conversation with Bryanne started out differently and continued at length, because she was genuinely interested in learning how to save for the future. Without those conversations and the steps that made up her plan this book would have never happened.

To my friends that helped proofread this book

Thanks to Kim, Dana, John, Bill, Patti, Jeff, Serinol, Tony, and Maria. These folks are all from pretty diverse backgrounds and represent a good cross section of the desired audience for the book. I appreciate their efforts in reviewing this material.