THE RETIREMENT TRAP

Succeed And Thrive In The Long, Long Retirement

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1

INTRODUCTION

Critical Stuff: Read some of the introduction! This book isn't for everyone, and the intro will give you a good idea about its suitability for you.

In This Chapter: The good news: Longer lifespan, the bad news: You can't afford it. My qualifications: Life? My sources: The Web. The meaning of pono.

Who reads introductions? Well, this one might save you some time. If your reaction to the next few paragraphs is to run away screaming with your fingers in your ears, then this book is not for you.

After I wrote the first draft of this book I went through it with a critical eye and eliminated anything I thought the reader might not need. Then I added workbook elements, both to give a clear plan of action, and to set a simple path that enables you to check your progress. I'll eventually derive an action list to post on the accompanying website for easy reference.

Most retirement books start out by telling you that you need a plan. But there's a big problem with that idea. No matter how carefully you plan, you aren't

really ready for the kind of retirement that faces modern Americans. You may have started planning and saving at an early age (and welcome to the skinny end of the bell curve, you one percenter, you) but are you really ready to spend your last thirty or more years unemployed?

Historically, retirement was pretty easy, and that easy retirement is the one you've actually planned for. You saved some money, the company you worked for gave you a pension, you had some social security. You retired at 65 and promptly died (average male lifespan in 1935 was 62.7 years). Your wife lived modestly on survivor benefits for fifteen more years in a little apartment with two cats named Inky and Mr. Mittens.

So hey, that worked great. But that was then. If you turned 65 today, on average you'll live 20 more years. Social security will probably be diminished in some manner in ten years. Company pensions are rare. Your IRA looks anemic and your technical chops are as outdated as a Walkman. You need more than just a plan. You need a bunch of plans.

Even if the financial side of your retirement is well in hand, how long do you want to spend sitting in the kitchen in your underwear? How long do you think it will be before the same spouse that used to say "you never have time for me" will say "Leave me alone, I have a life. No, I don't want to have lunch with you." We'll cover some of the *get-a-life* stuff too, it's my true area of expertise.

And finally, no matter how much you save, if you're unhealthy your medical expenses will consume that. We'll cover some basic approaches to geezer health.

I'm a wizard at the fun part of being retired, but I once considered myself a

financial moron. So why would I write a book that's mostly about the financial aspects of retirement? The quick answer is that I've made some serious (but correctable) blunders in planning and executing my retirement, but I've taken charge of my retirement and made it my job to learn all I can to do it better.

I think there's value in learning the basics of a task like retirement from someone who isn't a financial expert. I'm a little closer to the ground and I'm not focused on theoretical issues–I've experienced things you don't want to experience. My concerns are more like yours. For the more sophisticated solutions, you need to go elsewhere. I can point you where you need to go, but I can't give you a guaranteed recipe for having a successful retirement. Hell, I can't do that for myself.

My Sources

This book is highly derivative. When I started it I had only a passing understanding of financial markets. So I googled every aspect, read hundreds of articles, and googled whatever those articles used as sources. Made notes, cut and pasted. Built a structure for the things I learned and started writing.

Unfortunately, I didn't track the sources of everything I read and cribbed from. To put it simply, I don't KNOW where a lot of this information came from, so I can't properly attribute it.

Sorry.

I've read more deeply as I went along, rewrote sections, combined similar chunks of articles, and added my own voice and ideas. But if you recognize some fragment here as being suspiciously similar to something you wrote, it

probably is, and I'm sorry that I didn't credit you. I'm certain the material here meets the modification criteria for "fair use", but I generally try to hold myself to a higher standard than "more or less legal". This is a living document. If you see something you'd like fair attribution for, then send me an email: bill@theretirementtrap.com and I'll credit you. With traditional publishing that would be slamming the door after the horse has bolted, but the modern publishing model makes it feasible to update books already in readers hands.

There are two books that I found highly useful in my efforts:

The Smartest Retirement Book You'll Ever Read, by Daniel Solin

The Bogleheads' Guide to Retirement Planning (several authors)

I read many more, but these two were clear, honest, and well structured. I highly recommend both.

You might wonder what this book is for if most of the advice is contained elsewhere. This book has my own spin, but any reliable information comes from multiple sources. Would it be better if I were just making this stuff up? My aim is to offer a more holistic view of retirement that includes the financial aspect as a means to an end. That end is to be successful in managing the retired segment of your life, which will be very different from your prime earning years. But if your only criteria is originality then I'd suggest a novel. I wrote a couple, but I cribbed the style from Elmore Leonard, so maybe that won't work either. But here's a link to my first: https://www.amazon.com/Riding-Sophia-Bill-Babcock-ebook

My primary blog is http://www.ponostyle.com which is about doing things

better. Pono is a Hawaiian word with a host of meanings, mostly centered around doing things righteously. When a person is pono they feel all is right in their life, because they are living their life with integrity. My preferred definition of Pono is to be continually trying to improve.

I wish you a pono life.

The Retirement Trap

> **Critical Stuff:** Retirement in the manner many people think of it is an outdated concept. We live too long.
>
> **In This Chapter:** A little reality about pensions. Planning for 30 years of unemployment.

This first section of this book is primarily about the nuts and bolts of retirement, and the only serious financial element is the second chapter, which is a quick and dirty overview of all the basic financial issues you face in retirement.

If you get nothing else of value from this book, understand this: Any advice you get on your retirement and your financial well being is at least partly wrong and sometimes it's simply bullshit–including my advice. At the very least it will never have your unique situation and perspective in mind, but beyond that, it might be simply wrong and often it will be self-serving.

Pass everything you see and hear about these issues with a huge grain of salt and keep your bullshit detector cranked up to eleven. I'm going to try to help you ask the right questions, but your well-being is your responsibility.

Will you really retire?

Many people in their fifties, having gone through the recent financial market

disasters, watching their home slowly come out from underwater, and looking at devastated retirement savings accounts and perhaps being drained by some continuing family support that they thought would be long over with, toss their hands in the air and say “I’ll never retire.” Sounds like a rational response, but statistics don’t bear that idea out. The current average retirement age is 62. More than 50 percent of current retirees say they were forced to retire early by some event outside their control.

For the people who were forced back into the job market by layoffs, or because they couldn’t manage the physical requirements of their work, the employment prospects are dim. It’s illegal to discriminate on the basis of age, but that doesn’t mean it doesn’t happen every day. Taking a new job at greatly reduced pay when you’re 60 might really suck, but it’s an element of retirement that you have to recognize, consider, and plan for.

If your skills are mostly technical, you face the accelerated change in most fields. I dabble in electronics and embedded systems coding, and can’t imagine trying to keep up at a professional level. Most of the people I know in their 50’s have been bypassed by technological and social change. Jumping back onto that fast moving train is a huge challenge. The exception is people with “trade” jobs. If you are an electrician, a plumber, a roofer, or work in any job similar to those, you probably already know you could work until you drop. There’s very few folks in the pipeline to replace you. It might well be the biggest threat to our economy–that there are a broad set of basic skill jobs with few people to fill them. So you can work as long as you can, or as long as you choose to, and you can probably get part-time work that pays well. But is that what you want? And again, you are in a small minority. Most retirees are forced to retire–one way or another.

So yes, you will probably retire. You need to plan for it. If you haven't really started, start now.

What would your savings look like if you spent the last 30 years unemployed? I know mine would be very zen–like the sound of one hand clapping. And yet that's what you're planning to do as you consider retirement. If you retire at 65 it's not out of the question that you'll live to 95 or even 100. More likely that you'll live to 85, but do you really want to be scrambling for bucks at 90? The simple reality is that retirement is a concept rooted in the turn of the last century, codified in the USA by the social security act in 1935–when the average life expectancy was 61.7 years. You were supposed to save for retirement, with a pension from the big manufacturing company you worked for all your life, sweetened by savings and a little social security to help anyone that fell through the cracks. Then die shortly after leaving the workforce. In fact more than half of the prospective retirees were supposed to die in the traces, a couple of years before they retired at 65.

Retirement was a rare thing when I was a kid in 1950. A golden promise that kept people working hard, and struggling to move up. The big companies and government jobs that promised pensions were structured around a necessity of industry–that people who could no longer perform due to age would make way for people who could. With people dying like clockwork just prior to the payout it was usually a benefit for widows. A stipend that perhaps kept them comfortable, depending on how generous the survivorship benefits were.

The situation has changed completely. There's simply no way that saving at the typical rate for Americans working at a typical middle class job can support that person in retired splendor, walking with their elegantly aged, active, slender, vibrantly healthy wife on a secluded beach for 30 years. First, most

of us would go nuts staring at waves and gulls for very long, but worse yet, for most Americans, retirement means scaling back on activity, accepting the "limitations" of aging, and eating junk while staring at the boob tube. The dirty trick of an extended lifetime for most people is that it's just a lot longer time to be old and sick. It doesn't have to be that way.

Here's two more doses of reality. Lots of people blame Uncle Sam for social security "not working". It provides too little money, and it's going to fail. Yes, it does, and yes, it probably will. But the problem is not that Uncle Sugar stole your money. The problem is that it was never intended to do what we're asking it to do, and what we're asking it to do is impossible.

And lots of people fault the big companies for trying to wiggle out of their pension requirements. Again–not designed for today's reality. There hasn't been enough money going into those funds for them to support people living to age 85. They were supposed to die, and they didn't.

So lets accept the premise that retirement is not really going to work the way the financial company advertisements portray it for many people. How are you going to avoid the trap that confronts a huge number of people?

Keep working? For a lot of people that's not an option. They either have jobs with a mandatory retirement age or they work in a job with physical requirements that get harder to meet as they age. As mentioned previously, most people say they plan to retire at age 66, but the average retirement age in the USA is 62. About 50 percent of retirees say they left their jobs earlier than they planned, either because of illness, caregiver responsibilities, layoff, or other work related issue. Age discrimination in hiring is illegal, but it's more difficult to find a high-paying job after age 55.

Save more? Well, that's a good start, but as many people discovered in 2009, saving in the way that most people do, by stuffing the limited amount of money the feds permit into an IRA or 401K, can be pretty disappointing.

Spend less? Another good start, but some of the biggest expenses you have are hard to avoid.

Work at something else? It's very likely that anything else you do is going to pay less than what you do now. Going from a position based on the expertise you spent 30 years acquiring to something new is not a recipe for instant success. For the people who were forced back into the job market by layoffs, or because they couldn't manage the physical requirements of their work, the employment prospects are dim. Taking a new job at greatly reduced pay when you're 60 might really suck, but it's an element of retirement that you have to recognize, consider, and plan for.

If your skills are mostly technical, you face the accelerated change in most fields. Many of the people I know in their 50's have been bypassed by technological and social change.

This paints a grim picture, but your reality doesn't have to be unpleasant simply because it may not be everything some bullshit advertising claims your life needs to be. I think the key to retirement success is to plan as best you can for it, be very realistic about every decision you make, and react prudently and quickly to changes in your situation. Look at everything–income, expense, activity, interests, where you live, how you save, how long you will work–with a clear understanding that you are looking at 30 years of a very different kind of life than you are living now. That's the crucial piece–don't look at how things will be next week or next month, any calculations you make have to consider

at least twenty years of retirement and conservatively, thirty. That probably seems impossible, but it's not. We'll help you.

And most importantly, get fit and stay healthy. We'll cover that in detail. You've GOT to do it–to the very best of your ability. Old, sick and broke is the alternative.

Learning Objectives

Each chapter will include some recommended assignments and a follow-up to what you *should* have done after the previous chapter. This chapter is a piece of cake.

The plan I want to help you develop is a physical thing–a notebook that's going to have the fundamental elements you need to create, verify, and monitor your progress toward a successful retirement, Go out and buy 1″ spine ring binder and some tabbed dividers. You'll also need a few dozen sheets of paper for notes, but most of the stuff that goes in your notebook will be printed pages, statements, and checklists.

Label your notebook "Retirement Plan". On the first page, write your current age, the age you will be when you want or expect to retire and the number 65. Then calculate two simple numbers:

Subtract your current age from your planned retirement age.

Subtract 65 from the age you expect to kick the bucket.

Circle both numbers. You've just done more retirement planning than most of your peers. The first number tells you how long you have to get your life in shape to manage the last number with some sort of grace. We'll fill the rest of the notebook as we go.

But seriously, get the notebook. You're going to need it.

Follow-up for Previous Chapter

Even easier. there is no prior chapter to follow up on.

Retirement Financials In One Chapter

Critical Stuff: Your biggest risk to retirement may be an advisor working in their own interest.

In This Chapter: Paying for lousy advice. Why retirees are lousy tippers. Betting on death. Why taxes really suck when you're unemployed. Borrowing from Gino the Shark.

Hate reading financial crap? This chapter is the shortest version of everything important about the financial aspects of retirement that I could think of. I could have edited out the explanations of the thumb rules. but I hate rules without explanations, so I left some in.

I can actually shorten this chapter and the basic subject of retirement financials into one set of bullet points

- If you have a financial advisor of any sort, look very hard at what he is costing you in direct fees as well as indirect costs like commissions, back-channel payments, and conflicts of interest. If you have a broker or any other advisor other than a CFP who is willing to sign a fiduciary statement, can them. If you need financial advice use someone who charges an hourly or fixed fee. No long term charges, and absolutely not a percentage of funds under management. A CPA may be more useful than a financial planner.
- Invest ONLY in index funds, for stocks, bonds, and alternative investments.

Don't buy individual stocks, actively managed mutual funds, alternative investments, or any risky investment.

- Keep sufficient liquid, low-risk funds to last you two years.
- Allocate your investment assets to suit your age and your appetite for risk.
- You can't owe anything. No loans, no mortgages, no credit card balances. It makes no sense to have loans at rates that exceed the return on your investments. The only exception could be a locked-in mortgage at a low rate.
- Get healthy–exercise, control your weight, stop smoking (Really? Still?). Medical expenses can devastate your retirement funds.
- Delay taking your social security payments as long as possible.
- Your total draw on your savings can't be more than 3% per year. This includes the expenses of investment but not taxes. If your financial advisor is charging you 1.5% to manage your money and they invest it in mutual funds that have an average expense ratio of 1.5%, then there's no money for you.
- Be smart about how you handle 401(k) and IRA choices.
- Funds should be held by an independent custodian. If you use a financial manager, never write checks directly to them.
- Your fund family must be reputable and low cost. I like Vanguard, but any company with a similar size and operating principles may suit.

That's it. But that's a lot.

The critical things you need to do are:

- Create a portfolio of investments that will provide enough income to satisfy your needs, keep up with inflation, and recover from market changes over what could be a very long retirement.
- Allocate your assets to manage risk and minimize taxes. Continue to manage that allocation for rebalancing or strategy changes.
- Distribute the money you need to live from your investments and other fund sources in the most advantageous ways

To accomplish this you need to know:

- How asset allocation works
- How to deal with inflation eating away at your nest egg
- How annuities work and which ones to consider
- How IRAs work and how to minimize the tax consequences of distributions
- How social security works and the tax consequences of other income on social security taxes
- How the investment markets work.

Getting Help–Or Not

I assume that seems pretty daunting. If it doesn't, you aren't paying attention. You might think it would be ever so much easier to just pay someone to do this for you, but the professional advice business is a minefield. Yes, you can find a Certified Financial Planner who has to be knowledgeable about taxation

and investment. But like every profession, there are good CFPs and there are terrible ones. Many CFPs suggest that they can provide investment gains for you that outperform the market. That is so unlikely that you would be well served to assume the advisor is lying, stupid, or crazy. They may have managed to do that for someone else at some random moment in time, but they simply cannot promise to do it for you. It's impossible.

There are hordes of "retirement advisors" with various titles and letters after their names. If the letters aren't Phd or Mba then you can safely assume they are a meaningless sales tactic intended to bullshit you. There is a lot of money to be made by screwing a lot of people out of some of the money they saved for retirement–total USA retirement assets are $21 trillion. Even if you only have a few hundred thousand saved, there are lots of people who would love to take some of that from you. Be wary. Be SUPER wary. Seminars, lunches, meetings in beautiful mahogany conference rooms, radio or TV "guest" appearances–those are ALL being paid for by their current clients. Don't become one of the guppies supporting the growing business of a charlatan in a three-piece suit.

I'm going to suggest some simple investment strategies that don't require much in the way of handholding. I still use a financial advisor, but my advisor is a low-cost, fee-only specialist. I'll cover all that later, but first, let's look at the typical kinds of wealth and financial planners and how they can cause more harm than good.

If you are preparing to hire an advisor, take your time, don't decide that Mr. Smiley is your guy while you're sitting in his office. Investigate. Interview. Verify. Don't decide based on your gut feeling of someone being a nice, honest

guy. I've done that myself–it didn't work out well for me. Scam artists are great at appearing to be honest. A major part of deciding that an advisor is a good fit for you is looking at how they are compensated. There are always conflicts of interest in how your advisor is compensated. Some conflicts are huge, some small. Here are some examples:

- The most common way to pay an advisor is by some percentage of assets under management. The conflict is that they always want as much of your assets under their management as possible. They don't want you working with someone else, don't want you to buy fixed annuities, pay off your mortgage, and don't want you to invest in a business or buy real estate–even if any of those alternatives would be good for your circumstances. They're cool about it, they won't come out and say "bad idea, that means less for me", but having an advisor whose incentives work against your interests is a big problem that only gets worse with time.
- Advisors are also commonly "fee-based", waffle words for "you pay and I get a commission as well". You won't wind up with index-based investments, you'll have a nice set of very expensive mutual funds and alternative investments to maximize their commissions. Your advisor will also be incented to trade frequently, collecting commissions and causing tax problems. They might be willing to sell you a wildly inappropriate and expensive variable annuity, but only if they get a huge commission for it.
- Fee-only advisors are relatively rare, but there are some very good ones, and there are probably some useless ones. First, you need to find which is which. One measure is the number of clients and the assets under management. Fee-only advisors need a lot more clients to make a living. A fee-based advisor with 20 clients and $40 million under management might

be grossing $600,000 per year (yes, that means you are paying somewhere in the neighborhood of $30,000 to manage a million bucks for you, and you probably think you're paying them much less). A fee-only advisor with 20 clients might be grossing something more like $100,000. Successful fee-only advisers necessarily have a lot more clients and often manage a lot more money. If you find a good one their only conflict of interest is that they want you to keep paying them every year. That's OK if you don't want to learn enough to manage the investments and planning yourself. If you need pro help, then this is almost certainly the best way to go. But it won't necessarily be a learning experience. They didn't sign up to teach you how to manage your money, so you can't expect that. Your advisor has a reason to keep everything appearing complex and difficult. That's pretty easy since it actually is.

Don't misunderstand this warning–I'm not condemning financial advisors, even the one's whose practices I consider sleazy. They are in business to make money, and it's incumbent on the buyer of services to ensure those services meet their needs. Unfortunately, the financial industry in general trades on the simple fact that most people don't pay much attention to their finances–and don't want to start doing so. Most people pay little attention to what their advisor is doing with hard-earned savings, even if the conflicts of interest are obvious and the advisor fully discloses their inflated fees, commissions, and back-channel payments. Most people don't read the contracts they sign, and if they read them, they don't necessarily understand or act on the information received. Don't be one of those people.

But the deck really is stacked against you in these encounters. There has been talk about reforming the financial industry and requiring greater fiduciary

responsibility (meaning a legal duty to act solely in your interests). So far the effort has produced more noise than results. If you had any notion that congress is not bought and paid for, read the sleazy bill sponsored by Rep. Ann Wagner of Missouri that aimed at stopping the Department of Labor from moving forward on its rule to amend the definition of “fiduciary” for retirement advice. Wagner’s bill, in blatant new-speak titled the Retail Investor Protection Act, passed in the house, but apparently died in committee in the senate after President Obama threatened veto. the Department of Labor wrote a new rule defining and regulating fiduciary responsibility, but it does not take effect until mid-2017. I listened to Ann Wagner’s speech about the bill. She just about made me puke. But even if the Department of Labor ruling stands under the new administration (unlikely), there’s no guarantee that the advice you are given will be effective, worthwhile, or honest.

In theory, registered financial advisers have a fiduciary responsibility, but Bernie Madoff was a financial adviser and that didn’t stop his Ponzi schemes. It’s up to you to make sure any financial adviser you hire manages your account in your best interest. To do that you need to know how they are compensated–what all compensations sources are. Get that in writing, and confirm it as best you can. Request a Form ADV from any adviser you are considering. It discloses conflicts and complaints. You should also request client references. Call the references and talk to them, but don’t make those conversations the core of a positive decision–it’s more of a disqualifier. Dig a little, ask if they feel they understand what the adviser is doing for them. Ask if they feel their investments have been growing properly compared to the general market, if they consider their investment to be safe, and if they think the adviser charges too much. You aren’t likely to hear outright criticism, but tune your ear for hints.

If you do decide to use a financial advisor, require them to give you a list of the investment vehicles they plan to use before they commit your money. Take a look at the expense ratios of any mutual funds they intend to invest in, google any of the investment services firms they plan to use and the "platform" they propose. Look at what people are saying about the firms and their practices. If you see a mutual fund with an investment ratio over 1 percent, ask for the justification for choosing that fund.

For example, one of my advisors put a substantial amount of our savings into Matson Money. Google "Matson Money complaints" and you can see why I was so pissed off once I understood why. He also decided to switch platforms to a company called LPL. Again, google "LPL complaints". Both organizations serve to benefit advisors, not their clients. Beyond managing investments and handling the nuts and bolts of financial transactions, these companies are popular with fee-based advisors because they increase the commissions they receive. Their marketing is aimed at assuring the advisors that they can make more money while doing less work by using their services. Who pays for that? You do. You are the only source of income in these transactions.

With, or without an adviser it's time to start formulating a plan. Understand that your plan may need to change. Everything regarding the money you plan to use to live on can change–tax laws, inflation, global economic shifts, market crashes, bond interest changes. Everything and anything. The aim of your plan is not just to have a recipe, it's to understand the fundamentals of managing your money, and to have the confidence you need to make good decisions. When you panic, you sell low and buy high. Let's not do that.

You also need a solid tax strategy that keeps you from wasting money on taxes

you wouldn't have paid if you had done the right steps in the dance. That's beyond the scope of this chapter. We'll cover the basics later, but anyone looking to me for tax advice is delusional. Invest in either professional advice or some good books on tax planning.

How much money?

If you're going to have a plan that works, you need to know how much you need.

Expenses: List your current expenses–you need to go back at least one year to get a good idea of what that is. Come on, do the work! Don't just guess. Then take that list and adjust for retirement. You won't be commuting anymore, you won't be paying a mortgage payment (hopefully), you might move to a less expensive location, your insurance picture might change, and you won't be saving for retirement. If you plan to travel, you need to estimate that. If you are close to retirement, your list needs to be pretty good. If you have a long way to go then revisit the list every few years and tweak it. You need an updated picture to guide your efforts. Don't forget that you'll still be paying taxes–even on your social security, and long-term capital gains on any investments you sell.

Income: Add up all the sources of income you expect to receive once you retire. Pension, social security, etc.. The difference between your income and your expenses is what you need to make up from your savings.

Save all this in your notebook. we'll be using it later for budgeting. You know, that notebook you got that has the tabs in it?

If the amount you need to draw from your savings is more than 4 percent

(including all the fees you pay to advisers, brokers, etc.) then you're in trouble and you need to fix your plan. Four percent is a thumb rule, but it's an important one. The number comes from solid research, but there's a rational explanation behind the raw number. Over the last 80 years the general stock market averaged a 7 percent return. The raw historic numbers are higher, but they include full reinvestment of dividends and changes in price to earning ratios. You might think 7 percent would make a good number, but if you spend at that rate you will almost certainly run out of money well short of 20 years. The prime culprit is market volatility. When the market is low you'll be selling more shares to make up your 7 percent. You won't be buying shares when the market is high, but still you'll be on the most destructive side of a sell low, buy high portfolio ratchet. If that volatility happens in the early years of your retirement your portfolio will suffer even more from an effect called Sequence Of Returns risk. Volatility is generally not damaging to portfolios when you are accumulating them if you take advantage of dollar cost averaging (there will be more about that later or you can Google Dollar Cost Averaging) but when you're selling your portfolio over many years, that same cost averaging effect works against you to deplete your savings faster. Historically the net effect of volatility and the Sequence Of Returns risk is about 3%. Subtract 3 percent from 7 percent and Presto–4 percent.

I really recommend three percent as a more useful thumb rule, but a lot of people have trouble making it to four. If you have the option, cut your costs early so your portfolio has a better chance of recovery. Otherwise, Sequence of Returns risk means the gain you should see over time will be against a much smaller base. There are numerous sources on the web that graphically show this set of issues. Google "market volatility in retirement" and "sequence of returns risk" to see examples and graphs.

So here's the math so far. George is 65, and after calculating his current and estimated future expenses he expects he'll need $45,000 per year to retire. His social security and a pension (who gets a pension these days? People in government jobs, that's who) give him $25K, so he needs $20K from his savings. If he's going to spend 4% per year he just multiplies that $20K times 25 (the inverse of 4 percent) to get $500K in savings.

Unfortunately, George only has $400K saved. and he plans on retiring soon. He has only a few potential solutions:

1. Retire later. He can not only continue to save, but he'll shorten the number of years he needs to plan for. And the longer he defers claiming social security, the bigger the annual payment is. In fact, Social Security payout grows about 8% per year after 65, which is probably more than any of George's investments deliver, including annuities.

2. Cut expenses now and save more. That's going to have limited effect for George since time is short, but it might be practical for you.

3. Reduce your planned expenses in retirement. That's always an option though it might be unpalatable.

4. Work part time in retirement

5. Put part of your portfolio into an annuity.

George might thrash around and try some whacky ideas to make his portfolio grow. He might fall prey to one of the many sleazebags that take advantage of George's panic to screw him out of some money and make his problem even worse. But George and you need to understand something very simple–there

is no free lunch, no easy path to suddenly increase his holdings. Most of the extreme measures you take to try to fix a problem like this simply make it much worse. Don't panic, be smart, be prudent, and understand that the only person that can solve this kind of problem is you. The five approaches above are really all that's available to you–but it's enough.

Other than number five, I think most of those options are self-explanatory, though some people are surprisingly resistant to reducing expenses. People living in an expensive house in an expensive location might hate the thought of moving into something affordable. But if you run out of money you won't be able to keep that McMansion anyway. Better to get out in front of the situation. Simplifying your life also frees time and effort. Eliminating maintenance and taxes while being able to put some more money into your retirement savings helps you in multiple ways.

Saving and Investing for Retirement

Just to be clear, we are talking here and throughout this book about retirement savings. The money you need or may need in a year, two years, or even five years, does NOT belong in retirement savings and it absolutely does not belong in mutual funds or the stock market in general. What is the point of putting short-term money in a place where it might be substantially less than what you invested, right when you need it most. If you can't wait out a downturn and continue building your portfolio with dollar cost averaging, then your money shouldn't be in stocks. In the short term the stock market looks like a roller coaster, in the long term, it looks like a long, gentle slope. This is also the reason that as you approach retirement age your asset allocation for your savings should move steadily towards bonds–because it takes time for the dips and

bumps to smooth out, and if you need your retirement money today, you can't afford to pull your investments out in the dips.

So stash your short-term money in highly liquid, boring, insured, savings accounts, Money Market funds, CDs, bond funds, and don't get fancy. You aren't going to outsmart the market.

And now you also know why financial advisers–at least all the good ones–say you need two years of liquidity. Without that liquidity, you can't wait out the dips. But now let's leave the short term behind and get into your retirement savings.

Workplace 401K

Hopefully your employer offers a 401(k), 403(b), or 457 plan. If your company offers matching funds–full or partial–max it out. I don't care it that means you eat oatmeal and beans, it's free money that you contribute pre-tax and that grows without tax. Your contributions to the 401(k) lowers your taxable income, so if money gets tight, talk to your HR people about decreasing the withholding on your paycheck. Most years 85 percent of Americans get a tax refund–which means they loaned Uncle Sugar money interest-free. Your Uncle won't do that for you, so don't do it for him.

The only problem with 401(k) plans is that some of them have lousy investment choices with load funds or high management fees. It's a structural problem that seems inherent with the way 401(k) plans have been implemented. I'm not sure what the government had in mind with the original legislation, but the benefits of 401(K) plans accrue to workers last and least. The big beneficiaries of 401(k) plans have been employers–because they no longer have to offer

potentially ruinous retirement plans to attract employees. The second set of beneficiaries are insurance companies and the securities industry–they got a huge windfall in management fees and expensive investment vehicles. And then finally there's you.

At the bottom of the 2008 market crash, 401(k)'s suffered paper losses of $2 trillion. That's a pretty tough punch, but unless you did something dramatic like yanking out what was left of your money (and paying stiff penalties) a lot of that downturn has reversed. But you're still probably losing money even with the market rebounding because most funds are burdened with high fees, high plan costs, and ridiculous asset allocation.

In theory, investors in 401(k)s are supposed to make good choices about how their money is invested. Most don't. If you are a long way from retirement–ten years or more–the simplest choice is to put all your 401(k) contributions into index funds. Most plans have indexes as an option. The result of that choice is that your fund management cost will probably decline by as much as 1 percent. You'll have to manage your own asset allocation, and rebalance once a year to maintain the allocation you choose, but that's not difficult.

Your other general choices are specific mutual funds and Target Date Funds. Target date sounds like a great idea–they change your investment strategy and asset allocations over time, so you aren't maintaining a risky portfolio that could take a big hit just before you retire. Unfortunately, they often have exorbitant fees that will eat up the lion's share of the gain. One percent might not sound like much, but it's compounded–you pay it every year. It's deadly for your retirement. Mutual funds simply suck. We'll cover why later in this chapter, but the problem is mostly fees and poor long-term performance.

One quick aside–you can borrow from your 401(k), but that's a last ditch choice. Better you should borrow from Gino the Shark. If you leave your job you have to repay the loan plus interest immediately. If you don't repay it, then it's called a deemed distribution and it will be taxed as ordinary income, and if you're younger than 59.5 you pay a ten percent penalty. Even if you repay the loan and interest, the interest you've paid for with earnings that have already been taxed is counted as untaxed earnings, so you'll pay tax on it when you retire. Gino is looking better already.

Once you've maxed out your workplace retirement account (or, if it's an atrocious plan, invested enough to get your employer match), divert your next retirement dollars into an IRA. And once you retire or leave your employer, don't make the mistake of leaving your nest egg in your former employer's 401(k). You can roll it into a new employer's 401(k) if you consider the available investment options to be worthwhile, or roll it into an IRA.

Rolling over your IRA is almost always the best choice. A rollover simplifies and consolidates your savings from multiple employers, offers the widest range of investment choices and the lowest fees (if you choose wisely) and it's easy, as long as you don't make any mistakes. Most importantly–don't request a check from your former employer. If you do, you have to move the money into an IRA within sixty days. If something untoward happens and you wait 61 days, you owe taxes on the full amount and if you don't meet early withdrawal criteria you'll be hit with a ten percent penalty. You can lose nearly half your savings. Instead, do a trustee-to-trustee transfer which moves the money to the investment company you designate.

You might be tempted to pull your money out of a crappy and expensive 401(k) while you are still employed, but Uncle Sam won't let you contribute as much

money to IRA accounts each year (again, check with the IRS for this year's limits). And, depending on your income, you may not be eligible to contribute to one fully — or at all.

Furthermore, if there is a chance you might need to use your savings early, the 10% early withdawal limit is 55 for 401(k) with some useful exceptions, while it's 59 for an IRA with less wiggle room.

IRAs come in two garden varieties — Roth and traditional — and they offer different tax advantages:

- **Traditional IRA:** Tax-wise, this account works just like a 401(k) — the money you put into it is not taxed until you make withdrawals during retirement. Also, like a 401(k), you can deduct the money you contribute from your income, lowering your tax bill in the year you make the contribution.
- **Roth IRA:** This account gives you a future tax break only. The money you sock away in a Roth is never deductible. However, come retirement, you get off scot-free — you pay no taxes on the gains or the principal when you withdraw the money. A Roth IRA also allows you to withdraw your contributions tax-free at any time for certain things, such as a first-time home purchase or education expenses, whereas with a traditional IRA (and 401(k)), you'd not only pay taxes, but you'd also get hit with penalties. The Roth IRA is also a fantastic vehicle for providing an inheritance. If you can convince your heirs to behave, a relatively small Roth IRA can provide lifelong benefits and substantial wealth. We'll cover the details later.

Which one is right for you? I like the flexibility of the Roth — and the fact that the earnings grow tax-free. That said, the Roth is not necessarily the best choice for everyone. The Motley Fool article "Roth vs. Traditional IRA" gives

a great explanation of the choices, and provides calculators to crunch the numbers. They also offer a three-step article will show you how to get one set up. The Motley Fool is a great source of advice though they are constantly trying to sell you their investment advice. I've never followed advice like theirs, and probably never will, but their newsletters are highly regarded by people who make a hobby out of the stock market.

Taxable accounts

If you are aggressively saving for retirement you will probably max out the limits for tax-advantaged retirement accounts. The most important consideration in taxable accounts, other than keeping the accounts at a trustworthy custodian, is the tax aspects of the investments. Tax-inefficient investments will have to produce huge gains to overcome taxes, and that means very risky investments. Your taxable account should be in long-term, buy-and-hold index funds. Since the taxes you pay on these investments is minimal until you sell, they grow like tax-deferred savings. When you cash them in you pay only long-term capital gains.

Some advisers might take me to task for not recommending ETFs. I'm not all that excited about ETF's compared to index funds, but that's me. I'll cover the differences in detail in the appropriate chapters.

All of your long-term retirement accounts should take advantage of dollar cost averaging. If you save a fixed amount of money each month, the number of any given shares you buy is a function of market swings. When the shares are expensive you're buying less, when they're cheap, you're buying more. If your contributions to your tax-deferred accounts is automatic then you're already doing dollar cost averaging. If you're maxed out and contributing to a taxable account, do it the same way, either with an automatic withdrawal to your

custodian along with instructions on what to do with it, or a manual but consistent contribution, or a Robo-advisor account. That makes volatility work for you instead of against you.

Annuitize! Is that really a word?

Most annuities are a terrible idea. If your advisor is pushing you into a complex indexed, deferred, or variable annuity you can be certain that the reason he's doing it is because he's getting a big commission. And one way or another you're paying that commission. Fire the bastard, *right now*. It's certainly not the only way he's putting his interests before yours.

There is a flavor of annuity that can make sense for people who don't have enough savings to fund the lifestyle they want for their retirement. It's variously called a Single Premium Immediate Annuity, Immediate Annuity, or Simple Annuity. But it's only simple by comparison. We'll cover the ins and outs of other annuities, mostly for the benefit of people that have already been hosed by their financial advisor into committing to something hideously complex. Understand this–there are LOTS of drawbacks to SPIA annuities, and every device that insurance companies add to respond to those drawbacks decrease the periodic payout of the annuity and increases the fees the insurance company collects. There's no free lunch, and insurance companies not only charge you too much for the lunch, they charge you for eating it.

Here's how SPIA's work at their simplest. You pay the insurance company a lump sum of money up front. They pay you a monthly sum for the rest of your life. There are lots of tweaks here about how much they pay, adjustments for inflation, adjustments for your spouse surviving you, and providing some kind of inheritance. What's the problem with those? You'll pay for every tweak, and

you'll pay too much. You're also betting that the insurance company will stay in business for 30 years, which is never a certainty. But you can hedge that inexpensively.

The big benefits are that you know how much money you're getting every month, and it's more than you could safely withdraw from your portfolio. The reason they can do that and you can't is that they're betting that people are going to die, and they have a big pool of people for that bet to work with. You're getting a mortality benefit because some of the people who are buying annuities die the next day, and some live to be a hundred. The people who die early are paying for your mortality benefit. Just recognize that it could be you doing the paying. But you'll be dead, so that's cool.

The question of how much mortality benefit you can collect is easily answered online. Find a company that offers Single Premium Immediate Annuities (Google it!) and use the calculator they all provide to figure what your monthly paycheck could be for the particular amount you could pay for the annuity. You probably want to select inflation adjustments and if you're married you probably want your spouse to keep getting payments when you kick. The rates wander all over the place, depending on what the treasury and the stock and bond market are doing and how long the insurance company gets to play with your money before they have to start paying you. But you can expect it to be somewhere between the 7 percent average gain of the market and the 4 percent average safe withdrawal rate.

The downside is that your heirs don't get anything from the annuity when you (and perhaps your spouse) kick the bucket. If you need more money than your portfolio can safely provide but leaving an inheritance is important to you, you have two choices. Cut your retirement expenses or change your mind

about leaving those particular bucks for the kids. You're likely to have other inheritable funds and properties. Personally, I think leaving a big chunk of cash to my relatives would result in a lot of really unwise spending and would probably leave them in a worse financial condition than they were when the spree started. But that's me.

You should also recognize that trying to leave a substantial portfolio to your kids could have a worse result than "screwing them" with annuities. If you run out of money you're likely to be a burden to them. My Dad used to say "I think my money and my life will run out at the same time. If I die before the money runs out there might be a little for you, if I live longer than my money lasts, I might have to hit you up". He died regrettably young, but I wound up helping my mother financially for thirty years after he passed.

Spread Out The Risk

It makes sense to have your SPIA at multiple insurance companies, and they need to be very solid. Fred's Insurance and Storm Door Corp doesn't qualify. And you should have a clear idea of what protections the insurance regulations in your state provide. Some states require the insurance company to provide a substantial guarantee pool so even if the company becomes insolvent you're covered up to the guaranteed amount. The pools all have a residency requirement, but in some cases the residency requirement is for when you bought the insurance, in others, if you move you are only covered by the pool requirements of the state you moved to. So if you live in a state with a pool covering $300K and you move to one with a $100K guarantee, it's prudent to ensure your prior residency covers you.

Once you know what the pool is, you can decide how many companies to have

an annuity with. If you're covered for $200K and you want Annuities for $400K you choose two companies. Recognize that the company you buy an annuity from may not be the actual annuity holder. For example, Vanguard offers SIPAs, but they actually place the insurance at Transamerica. Splitting your annuity to half Vanguard and half Transamerica may not offer the protection you expect.

This may feel a little complex, but it's much simpler than the purposely intricate piles of crap that variable annuities offer. The prospectus from just one of the variable annuity my sleazebag advisor stuck me with is a book the size of an urban telephone directory, and it's just as readable. I spent many hours digging through it to figure out how to unwind myself from that mess. It was simply good luck on my part that I was able to transfer to a more rationally priced annuity at Vanguard. Exiting the annuities completely would have incurred a big tax bill. More on that later in the *Exiting Bad Investments With Your Ass Intact* chapter.

Is This For Me?

If you don't need an annuity to fill the void between what you need and what you have, then don't go there. A rational investment approach will suit you better in most cases. At most you might consider an annuity as a filler, annuitizing just enough to make up the difference between what you need and what you can safely withdraw. In almost all cases, a SPIA should be a Plan B, something you plug in if Plan A doesn't work at all, or fails at some point. You don't need an annuity the day you retire, unless you find that your portfolio just won't support your life. When that sad day comes, you can give your bucks to the insurance company and explain to Junior why he's not going to be able to buy a new monster truck when you move on to that big mud bog in the sky.

Understand though, that buying an annuity when you think Plan A has failed is not an easy proposition emotionally. You'll be selling off a big chunk–maybe all–of your invested assets at a low price. Generally people decide they have to take this step after a big market decline. There's a good chance that after a big market decline the annuities you can buy will offer a much smaller return than they did previously. If you view an annuity as a potential Plan B it's a good idea to keep an eye on the annuity market. Get quotes every so often and watch your portfolio. You might find a point when interest rates are up and the market is a little spooky where a SPIA looks really good. You might be very happy annuitizing enough of your portfolio to ensure you have the income you need, even if it's not the income you want. That's a much nicer place to be than finding yourself at the bottom of a big market dip, with annuity offerings that won't meet your income needs.

If you are particularly conservative, or you think that you will be emotionally unprepared to live with big fluctuations in your portfolio, then annuitize a larger percentage, and do it sooner. It's not the best strategy, you'll be forgoing the typical market gains, but you'll sleep better and you won't freak out and sell low.

Delaying Social Security

With just a little math you can treat Social Security like a SPIA. I know that sounds whacky, but your Social Security payout increases by 8 percent per year after age 65. Holding off on Social Security and living off your portfolio is a lot like buying an annuity with the $20K or so that you'll receive each year. Say you'd get $18,000 in benefits at age 65. If you wait a year that increases to $20,000 (I'm using round numbers, the government never does). Delaying a year is essentially the same as paying $18,000 for an annuity that pays $2000

per year. That's an 11.1 percent payout. Where are you going to find an annuity that pays that much? Of course you need to use your own numbers, and it's unlikely that $2k per year is going to change your life, but it certainly makes sense to deduct that amount from any annuity that you might be planning to buy and just defer as long as is prudent considering both your and your spouse's likely lifespan. You can only delay Social Security until you are 70.5, but your spouse can delay too, and there are some complex but useful Social Security strategies that we'll cover lightly later, or just Google it now.

It's generally a crappy idea to annuitize everything. Life has a way of handing out surprises that might not be covered by a monthly payment. You need some liquidity to cover that–the general advice is two years of expenses in liquid form. That doesn't mean stick two years of expenses into gold coins in your sock drawer. Your portfolio is partly liquid, you can get at some of the money in a day or so. Treat that as part of your emergency funds and add some money market or just an interest-bearing checking account for the rest. FDIC insured for any banked cash of course.

One investment you can look at as generally safe and highly liquid is bond indexes. You can get your money in a day, and the better indexes have a low correlation to market risk.

You won't find any solutions in this book for when the monetary system collapses and we're reduced to trading cowrie shells for coconuts. I'm not saying it won't happen, I just don't have any good ideas for how to sell the world economy short.

Asset Allocations and Life After Annuities

So now you have some idea where the difference in income between pensions and social security and your expense level is coming from. If you need an annuity you know what kind to get. What do you do with the rest of your portfolio? Stocks, bonds, gold coins buried in the back yard? The most common answer and the only thing I'm going to cover in this chapter is index funds of stocks, bonds, and bond-like investments. The question of how much of each (your asset allocations) is really up to you and your tolerance for risk. We've already talked about volatility and its effect on your stock portfolio. What should be obvious to anyone looking at a historic chart of market value is that the market goes up and down–it recovers, but it takes time. If you simply held onto all your stock, the value should reappear. But how long will that take, and what will you be doing in the meantime? If you're no longer working and you need to sell stocks to pay expenses while the market is down, you won't be fully participating in the recovery. So logically the closer you are to retirement, the less money you should have in volatile investments. Bonds and bond-like investments tend to fluctuate independently from the stock market and in a generally opposite direction. Bond values are also driven by interest rates and inflation, but when the market goes sour, panicked investors sell off and put their money in bonds.

So how much in bonds, how much in stocks? The thumb rule is to have your age in bonds. Not a bad rule, but there are better ways to determine asset allocation. There are a host of online calculators that will take into consideration the ages of you and your spouse, the size of your portfolio, the amount of money you need to draw, and perhaps your shoe size and calculate an asset allocation. Which ones you believe are up to you, we cover them in the chapter "Will It Last". For completeness sake here's a link to a catalog of calculators that seems to be well-maintained on Bogleheads:

http://www.bogleheads.org/wiki/Retirement_calculators_and_spending I like the Monte Carlo calculators, because I think that method is most useful for modeling complex situations with a lot of unknowns.

But a real answer to the question of asset allocation lies in your attitudes and your understanding of your needs and emotional makeup. It also has to do with how rigid your schedule for retirement is. If you're nearing your planned retirement age a market downturn can put you in a situation where you might need to defer retirement. If you retire as scheduled you might have to sell a substantial part of your portfolio at depressed prices to cover your expenses. Once you are in retirement this becomes even more challenging. Your ability to handle the outcome of risky or volatile investments is probably less. Of course if you have a substantial part of your expenses covered with a pension, social security, or annuities, then you can probably accept more risk in the rest of your portfolio. For example, say you're recently retired and you are relying on your portfolio to provide 20 percent of your expenses. Let's say you're 50/50 stocks and bonds for a 100,000 portfolio. You want the portfolio to grow at something close to market rate, so you're taking that higher risk. If the market declines by 20 percent, your bonds stay at $50,000 and your stock declines to $40,000 so your total portfolio is now $90,000 meaning the value declined by 10%. If that's tolerable for the length of time it takes for the market to recover, then you might be fine. But prudent asset allocation strategy demands that you rebalance your portfolio. You're going to sell bonds and buy stock to get back to 50/50 so you'll be at $45k bonds and $45K stock. In essence, it's the holding version of a dollar cost averaging approach. But your allocation ratio really determines the risk you face in the future, so even if it wasn't forcing you to buy low and sell high (a good thing), it would still be important to rebalance. If you can't stomach that, you shouldn't be in that risky a position.

If your ratio was 70 percent bonds and 30 percent stock, and the market declined by 20 percent your $30,000 in stock becomes $24,000 and your portfolio declines by 6 percent. You rebalance at $28.2K stocks and $65.8K bonds for a total portfolio value of $94K. That sounds nicer, but recognize that bond portfolios don't appreciate much beyond their interest rate, which has been very low in recent years. With a market growth rate of 7 percent and the current bond interest a 70/30 bond/stock portfolio will struggle to earn 4 percent. But if your living expenses are covered, and seeing your portfolio turned upside down scares the crap out of you, then you might not care about the upside potential of a more risky option.

Bonds

What Flavor Of Bonds?

The easiest way to buy a diverse set of bonds is in an index fund. But it might be a mediocre idea. Stock Indexes operate with some kind of rule that determines what kind of stocks comprise it and what percentage of the whole each stock represents. In the stock markets it's often something like market cap. meaning you'll have a larger percentage of the money invested in the larger company stocks that meet the other criteria for inclusion. That might suit your investment ideas, or you might be more interested in things like value, so there are a variety of index funds that slice the market in different ways.

The same is true for bond index funds, but their concentration is different. Big debtors wind up being over-represented in many index funds. The amount of debt owed is probably not an indication of the quality of a bond and only a secondary indication of company size and importance. And if you try to diversify by buying different fund designs, you might wind up with the same

kind of concentration in each fund just because of the number of bonds available. In other words, you could have a lot of overlap and what stock market investors would call “creep” of the criteria that you are trying to apply. While I’m a big proponent of index funds for stocks, I’m more inclined to favor actively managed funds for bonds. There may actually be expertise available that can make a difference. Bonds seem to have a less transparent market with factors influencing return and risk that might not be obvious in reading a prospectus. Expert knowledge seems more important. Of course you don’t want to overpay for this expertise, so you need to take a close look at what the expertise is costing you. But I’ve found some actively managed bond funds with expense ratios similar to rule-based indexes. They seem to be worth considering.

Another way is to buy individual bonds, but this exposes you to some risks you might not anticipate. Individual bonds expose you to credit risk (the risk of default), inflation risk and duration risk. The current value of a bond is affected by the interest rate multiplied by the remaining duration of the bond. So if you have a 10 year bond and the interest rate increases by 1% the value of your bond will fall about 1% times 10 years, or 10%. Bond funds are similarly affected, but they fluctuate as the average of the duration and the average of the interest rate of the bonds held. This multiplier means long term bonds swing in value a lot more than short term bonds. You can buy inflation adjusted bonds, such as the US Treasury TIPS (Treasury Inflation Protected Securities), but you’ll pay a premium for protection you might never need. Risk is a factor to manage, not a factor to avoid. You can’t get a return in any market without accepting risk. The trick is to make sure the risk you are accepting is compensated appropriately, and that a greater risk taken in one place is balanced by reduced risk, or at least uncorrelated risk elsewhere (meaning the

cause of the risk is not related, so the two investments will not decline in value because of the same change in the market).

Bond Ladders

If your portfolio is modest, say less than $1 million, you are probably better off sticking with bond funds to manage the concentration risk. But there are some advantages to holding a ladder of bonds. For one thing, in states with high taxes, tax-free municipal bonds can be very attractive. You need to look at the bonds carefully and understand the creditworthiness of your state. In general, a state bond for some entity with revenue-generating ability is preferable over something amorphous like General Obligations. So a sewer bond in an area that collects fees for sewage is perhaps a safer bond than one that provides a service that is supported by general taxation. Bonds have some strange complications regarding their coupon rates, face value, maturity date, and purchase price. If you buy a bond at the wrong time the next coupon payment might go to the previous owner. Conversely, if you buy a bond that immediately delivers a coupon payment, the price inevitably includes “buying the coupon” which is like buying money with someone collecting a fee for the transaction. Bound to be a losing proposition. You may be able to get inexpensive advice by finding a bond broker to do your buying and selling for you. They can at least outline current bonds available and tell you about pitfalls, but they won’t hold your hand a lot. No one makes money just by giving small investors advice about bonds.

Credit Risk

Treasury bonds have almost no credit risk, and almost no yield. At the other end of the spectrum, corporate junk bonds have higher risk and more yield.

Which should you invest in? That's up to you and your tolerance for risk. You can certainly use junk bonds in a well designed portfolio to balance out risk levels. It takes more work, and more knowledge, but while credit risk might seem like some different kind of risk than inflation or duration risk, it's really all quantifiable–it's just emotionally scarier. Higher risk bonds with a short maturity might actually hold value better when interest rates rise.

FDIC-insured certificates of deposit and other interest bearing holdings have a place in your portfolio as well. There's no magic in bonds. If CDs are doing as well, the much easier redemption might make them a lot more attractive. and money market funds can be even more attractive and more liquid.

Stocks, mutual funds, ETFs, and Indexes

Investing in singles stocks is mostly just gambling. The exception is stock in a company you work for where you get either options, stock grants, or some kind of discounting. There are tax issues with stock you get from your company that are beyond the scope of this book, and you need specific tax advice to deal with them. Most people hold stock in their portfolio in the form of mutual funds, and in most cases the mutual funds are doing very little good. The reason is that the fees for many mutual funds eat up much too much of the gain. If you haven't been paying attention to the fees you're paying for the funds you hold it's time to change that.

The story you'll hear from advisors and brokers is that smart mutual fund managers are worth the difference in cost. And study after study over the last decades have proven that to be at best nonsense, and more baldly, a complete lie. In general, the cheapest funds outperform the more expensive ones in every asset class. Yes, you can google that. Morningstar has several recent

reports and some historic ones that categorically state that, but it's been the topic of research for decades. The reason is mostly expense deducted from gain, but it's also true that expensive funds tend to be the ones that were most successful in the previous year, so investors pile in, and the manager has to reach further to place all that money and take more risks to try to meet or beat his previous performance. And then there's the simple statistical principle called Regression to the Mean, which we'll cover a little later. And finally, the frantic management means two things–lots of trading, which means more short term capital gains recognized, and uninvested money sitting in the fund when a losing position is sold. The taxes aren't part of the performance reported, but they'll bite you right in the ass. All of that means that "hot" funds and star fund managers is just marketing bullshit.

Mutual Funds can be defined as funds where an active manager tries to beat a given index, while Index Funds are funds that aim to duplicate the performance of an index. The expense of executing a set of rules that follow an index are much lower (typically 0.1 percent or less) than the expense of an active manager (typically 1 percent or more). One percent doesn't seem like much until you compound that cost over the years you hold an investment. And once you retire you'll be living on three percent of your total investments. Add in 1 percent for the fund manager and your likelihood of depleting your savings too quickly increases drastically. Add another 1 percent for your investment advisor and you're really in trouble.

ETFs are varied forms of index funds that are traded as stock instead of as a fund, as index funds are. You can generally only buy an index fund from the provider–like Vanguard–but you can buy ETFs anywhere you can buy stock. It used to be that you paid brokerage fees to buy ETFs, but most low cost brokerages like Vanguard, Schwab, etc. will buy and sell many ETFs without

a fee. The fundamental difference between an ETF and an Index Fund is that you are not buying the shares that make up the ETF, you're buying the ETF. In theory it shouldn't make much difference except for certain capital gains tweaks that have to do with redemption (covered later) but in fact ETFs may not precisely follow their index in value, and a few have lost most of their value for one reason or another. We'll cover the pitfalls in the ETF chapter, but for now lets just say that ETFs from larger companies have numerous trading benefits and only a few downsides. But lots of companies have jumped on the ETF bandwagon, creating all kinds of exotic indexes. A lot of care is recommended in playing with these toys.

Risk and Low Cost Funds

Low cost funds like ETFs and Indexes offer several other benefits and reduced risk. The biggest benefit is diversification and simplification. If you wanted to hold thousands of US and International stocks as well as a broadly diversified bond portfolio, you could do so with as little as three index funds. In fact you could do it roughly and with a little less control with just two funds. There are all kinds of portfolio suggestions on the web for radically simplified and very inexpensive portfolios that have only a few components. You might consider this oversimplification, and wonder how much return you would be sacrificing if you held such a simple portfolio. The answer is, compared to the average investor, an average three, five, or seven element portfolio would blow the socks of their return. Most individual investors, and investors using traditional high-expense financial advisors, gain substantially less than market returns, year after year. A simplified and highly diverse index portfolio will return almost exactly what the market returns. With portfolios like this the asset allocation becomes much more important than the particular funds chosen.

Asset Allocation manages the general risk level, which determines how close to market returns the portfolio generates.

This all might seem mechanical. That's because it is, and that's why it works. There are even "ROBO Advisors" that manage these kind of portfolios for you with automated processes. Most do the asset allocation and rebalancing automatically, and some do more advanced and generally painful tax loss harvesting, selling losing positions and buying similar stocks automatically to harvest losses and avoid "wash sale" tax consequences.

This isn't to say that there are not people with sufficient knowledge of the markets and understanding of the fundamentals of particular companies and markets who can make money with targeted investments. But those people probably are not you, and unless you have many millions of dollars to attract their attention, they probably won't be offering to manage your money. You're going to get some frat boy named Bubba. If you're investing in Index Funds and ETFs you don't need Bubbas help. And you don't bear the irrational market risk of high cost funds where the superstar moves to another firms and the fund falls out of favor. And you don't bear the risk that your fund manager puts a big bet on a particular stock, or segment, or market, or country that doesn't work out. Indexes have basic rules that get executed with boring regularity, which means you won't wake up some morning and read about the implosion of one of your holdings in the Wall Street Journal. That's a form of excitement I can do without.

Sacking Your Adviser: Switching Costs

Switching advisors is easy and doesn't cost much, unless they have you wrapped up in some proprietary junk that's hard to transfer. That, by the way,

is an important issue. Don't let your advisor put your investments in a proprietary "platform" that can't be traded in the general market. Outfits like Matson Money take standard DFA index funds and clump them together into their own proprietary form. You might think that any DFA-approved advisor could unravel and trade them, or move them to a custodian "in kind". But you'd be wrong. You're stuck with their ridiculously expensive management fees, holding ordinary DFA funds that should cost a fraction of what you'll pay. The only way out is to sell them, and pay capital gains for any increase over basis. This is a fine way though to tell if your advisor is screwing you–if they want to put your money into Matson funds, or a platform like LPL, or into some complex alternative investment with limited liquidity you should stop right there and ensure you know what you're getting into. Outfits like Matson sell their services to financial advisors on the premise that the advisor can make millions without effort. Where do you suppose those millions come from? LPL kicks back as much as 80 percent of the fees it charges to brokers, and is constantly dealing with lawsuits, investigation, and consumer complaints. Google it.

For the most part you can move custodians, or just leave the funds where they are if the custodian permits it, and change the advisor's ability to access it. Most custodians will be glad to help you through the steps of either eliminating the advisor or transferring to another who isn't screwing you. And of course, if you're switching to a fee-only advisor they can and should hold your hand through all the steps.

If your current investments are in high-cost funds you will want to move to low-cost. But don't just pull the plug. You'll almost certainly be paying long term capital gains on any increase. You can transfer the funds "in kind" to a new custodian if they can hold those particular funds, but while you will have

eliminated the advisor's fee, you won't have eliminated the fund managers fee (expense ratio). If the funds are in non-taxable accounts then you're in good shape, you can sell them and buy low-cost funds without tax of any kind. If they are in a taxable account then you need a strategy.

The first thing to do is to look at the change in value of all the funds since the time you purchased them. Any losing positions can be sold immediately, and you can use those losses to offset selling some winners. Look at the management fees for all the funds you own, and decide which you want to get rid of first. If you are like most investors, you'll probably be shocked to find that the high-fee funds are often modest performers or losers. You don't need to do anything quickly, rushing into changes often leads to unintended tax consequences. This is a good time to spend a little money on tax advice. Make sure that whoever you hire for that can communicate with you well. Tax code is arcane, and there are some great practitioners who only make sense when they are talking to other experts. In my experience tax advisors make a lot of mistakes. They're often rushed, especially during the heavy workload times around quarterly tax times and April 15. Plan to double check and ask if something looks wrong–and keep asking until you understand the numbers and know they are correct. Try to avoid those crunch times.

We'll cover how to get out of annuities in a later chapter, but understand that you have to proceed carefully, and at the right times. Many annuities have substantial penalties for withdrawal.

You might also be interested in rolling over your 401(k) into an IRA or doing a conversion to a Roth IRA. Pro advice is worthwhile, though I'll lay out the basics in the *IRA's, 401(K) and the Grapes of Roth* chapter.

Taxes In Retirement

Who would have thought that taxes become so much more important in retirement than when you are working. It's true for nearly everyone. For most people's working life, taxes and social security are generally automatically deducted from their paycheck–they don't really feel the pain. It's only if you are self-employed, or have some major windfall or loss that you pay much attention to taxes other than filling out a yearly form to see if you owe more or get a refund. And since eighty percent of Americans get a refund, taxes just aren't all that apparent in your daily life. But when most of your spending money comes from retirement savings, every dollar of taxes that you pay is one less dollar you can spend–and you have to plan for it. Uncle Sam wants everything that's coming to him. It's rare for retirees to get a refund at tax time, and if you do, it's because you screwed up and paid too much.

Most retirement tax strategy has to do with deciding which accounts you should use to take the distributions that constitute your paycheck. Your tax bracket during the year you take distributions and your current age plays a big part in the answer to that question. When you reach 70.5 you have to start taking Required Minimum Distributions (RMD) from your tax-deferred accounts (except Roth IRAs). The basic strategy is to treat your tax brackets as buckets. You take distributions from your tax-deferred accounts to "fill up" the lower tax brackets. If you're over 70.5, take the RMD (the penalties for not doing so are large enough to outweigh any tax issues) and then fill the buckets up to the tax bracket you expect to be in for the next few years. If the total amount withdrawn is more than you need, probably the best use for it is to transfer it to a Roth IRA. More on that later or google for the five brazillion* articles on Roth conversion. Your tax-deferred account distributions will be taxed as ordinary income, but if you expect to be in a higher bracket in

following years (for example, when you start taking Social security Payments and Required Minimum Distributions) then it makes sense to take the hit now. If your prognostication skills are good enough, you might want to fill the buckets up to the bracket below your expected future rate and put any excess into a Roth IRA. That means you'll be paying tax on the distributions now at your current low tax rate, and taking the money out of your Roth tax-free in the future.

Otherwise, fill up the lowest tax buckets and take the rest from your taxable accounts. If you are married filing jointly, then roughly the first $20,000 of your income is not subject to tax (because of the standard deductions of about 12K plus two exemptions of 4K).

Surprise Taxes

One of the main reasons to avoid high cost, managed mutual funds is the turnover rate of the shares they hold. The crappy performance of high-cost mutual funds relative to indexes is well known, successful managers rarely repeat success, and the big fees eat up the gain. But that's just the tip of the iceberg–the returns get worse when you factor in the taxes that the fund managers blithely distribute to fund holders and never deduct from published gains. On average, managed funds replace 80-85% of their holdings yearly. That's kind of the definition of actively managed, and any manager who doesn't trade a lot is going to look very skanky if his funds don't do well. But all those trades cost money, and on average, active trading reduces returns by as much as one percent–and that's before you pay the manager for his brilliant strategy. It also creates taxable gains which are distributed to the shareholder. It's really fun to get socked with a substantial tax on an underperforming fund. You can buy tax-managed funds, where the manager tries to offset gains with losses

in the shares he trades, but they generally have fees to keep you from selling shares, because large exits mean the tax strategy blows up when shares need to be sold to pay those exiting.

The best solution, in my opinion, is don't buy actively managed mutual funds. Index funds and ETFs are the polar opposite of active trading. There still will be occasional capital gains distributions if a stock is bumped from the index and must be sold according to the rules of the fund. But that's comparatively rare. Smaller index funds may also need to sell shares if a lot of investors exit the fund. But the magnitude of turnover-generated taxes for Index Funds is historically tiny.

There is an additional benefit of the low turnover and rule-based trades of index funds over actively managed fund–index funds can keep 99% of the money invested, whereas the uninvested cash position of the average mutual fund with it's 85% churn is much higher. If a smaller percentage of the money is invested at all times, then the mutual fund has to beat the index before it can even break even. One more factor that fund managers need to overcome. And that's before they make up for transaction fees, management fees, and finally capital gains distributions that make most of the gains taxable.

But wait, there's more. You are also taxed on dividends, but the tax rate on qualified dividends is much lower than on stocks that have been held for less than a year. With mutual funds turning over at 85 percent, most dividends are unqualified. Qualified dividends are currently tax-free for those in the 10% and 15% brackets if the dividend income does not exceed the bracket. They're taxed at 15% rate for those in the 25% up to 35% tax brackets and max out at 20%. Nonqualified dividends are taxed as ordinary income.

All this talk of taxes might seem terminally boring, but here's a statistic that will send a little sizzle up your spine. As much as 25% of the returns from mutual funds is consumed by taxes on turnover gain and dividends. That happens every year, so the effect is compounded. Over a thirty year period, a 25% reduction in returns of $10,000 is nearly $200,000. If the mutual funds in your portfolio are providing $50,000 per year for you to live on, the thirty year compounded cost of all that trading, fees, and advisor fees can easily exceed a million bucks.

Plan your tax strategy well, my friend.

So that's the basics. Now on to the detail and equally important, some advice on health and fitness as well as some ideas about how to spend your retirement well.

Here's the two paragraph version of the health and fitness chapters.

There are five things that are likely to shorten your life:

- cancer
- heart disease
- stroke
- respiratory disease
- liver disease

You control most of the risk factors for all five. Diet, exercise, what you eat,

how fat you are, and whether you smoke and/or drink too much alcohol. Clean up those factors and you'll save a lot of money, because the best way to manage health care costs is to not need it. If you suffer from any of those diseases and they don't kill you, the out of pocket medical expenses for 30 years of your retirement will rise from an average of $250,000 to at least double that.

I other words, the second worse thing that can happen to you if you don't clean up your act is that you'll die young. The worst thing is that you won't, you'll just be chronically ill and a miserable burden for the next thirty years. At least that's how I see it.

*I use Brazillion occasionally to denote a big number because it makes me grin. Old joke. Insert the president you like least.

At the morning briefing:

"Mr. President, five Brazillian men were killed last night in a terror attack."

The president is visibly shaken. "My god, that's horrible. Remind me–how many is in a Brazillion?"

Homework Assignment

Since we haven't given detail, we're going to minimize the homework for this chapter.

If you currently use an advisor, contact them and ask for a full accounting of last year's fees, including all commissions and trading costs–if they are a Registered Investment Advisor (RIA) you can ask specifically for a form ADV part 2. Be prepared for pushback and foot-dragging, but insist on a full accounting, even if they are not a RIA. There is no question that they already know that number–they couldn't run their business without it. If they refuse to provide that to you, then you know what you need to know.

Gather copies of your retirement savings account year-end statements, and asset values for other investments (home, vacation home, rental properties, collections and other valued assets). We're going to need that soon. Put it in the Retirement Fiance section of your notebook.

Follow-up to Previous **Chapter**

Did you get the notebook and write down those two simple numbers?

What Do You Want Out Of Retirement

Critical Stuff: Most people retire with no real idea of what they are going to do.

In This Chapter: a checklist to start you thinking.

What do you want out of retirement??

If you can't answer that question in detail, then you need to sit down with your retirement plan notebook and any significant others in your life and figure it out. If you don't know, then the rest of this book won't help you much. It's the most fundamental question because it informs every other aspect covered in this book, from investment, savings, spending, budgets, deciding where to live and how, what kind of sport and fitness you'll pursue, even what kinds of hobbies you'll choose or continue.

This checklist, plus any other issues you can come up with is your homework assignment. Add it to your Retirement Plan Notebook. This can be one of the most important pages you add if you really give this some thought. Most of us have a pretty fuzzy notion about what our retirement means, and no real idea of how to execute on the wishful thinking. How often have you heard of someone moving to be close to family only to have them disperse? What are you going to do then? Chase them? The best way to work on this is to write

down the question and then answer it in as much detail as you can manage. Multiple pages of answers is fine.

Homework Assignment

Do you want to retire?

Do you "need" your big house or are you ready to simplify?

Do you have friends you'd like to spend more time with? Travel with? Build something with?

Is family important to you?

More time with family or less?

Are you going to move?

Do you want to learn new things?

Would you like to hone your internet skills?

Would you like to learn a language?

Would you consider moving to a different country for a while to immerse yourself.

Do you like travel? Do you love every aspect and challenge of travel? (Going somewhere for two weeks is nothing like spending three months or a year exploring places).

Are you willing to stick to a tight budget?

Country or city?

Want to start a business?

Is there a job you'd love to do?

Would you like to teach or volunteer?

How about public service?

Motorhome or 14 foot Airstream?

Would you enjoy remodeling a house?

How about going back to school, either physically or online?

Want to write a book? This is my third book, the first two are novels. Publishing your own book is easier than ever, though getting published by a mainstream publisher is harder than ever.

Music, fishing, gardening, building an orchard, photography hiking, golf and bowling

Are you going to get fit? Did we already say that? It's worth repeating.

Want to learn to windsurf, surf, standup paddle, kayak, take that motorcycle trip?

Okay, that should be a reasonable start, but it's just a start. Remember that you

are potentially looking at 30 or more years, some of those years may be spent with physical limitations, though hopefully some of the ideas you find here can help with that.

What If You Get The Boot?

Critical Stuff: Losing your job is as traumatic as divorce or a loved one dying–even if you hated your job. Deal with the stress first. Bring your family and friends closer, do something that makes you feel good (without blowing money), take stock of your situation, then get busy to optimize the result.

In This Chapter: No plan, however clever, survives first contact with your idiot boss. Booting out the cuckcoo. Simplify. Go on the dole.

So you got the boot, or perhaps took the early retirement offer with a bit of pressure ("these good terms might not be available later, Fred"). Now what?

I keep saying this, but it's important–most people plan to retire at 67 or 68, but the average retirement age in the US is 62. I know, you're not average, but most of those people retiring at or before 62 didn't plan on doing that. If it happens to you, here's some steps to take. In the long run you are going to slip into retirement mode, Most of these steps are shorter term, but they all help ease the ultimate progression.

If you are fit to do the job you previously held, or if your work is mostly about knowledge, then you may be able to find another position, work as a consultant, or start your own business. If you can't find work in your profession a lower-paying job may be the best option. You shouldn't consider tapping your Social Security early, even if it means starting to pull from your retirement

savings. On average, each year you delay taking social security adds more than 8 percent to the amount you'll be able to draw–over the entire time you draw Social Security. You probably don't have many investments that deliver that kind of return. Unless you plan to die in very short order, maximizing your Social Security is important.

Here's some immediate steps you can take as well as some longer term suggestions:

- **Cut expenses**. Tighten your overall budget immediately. If your job prospects don't hinge on staying put, it may make sense to sell your home and move to a place with either better prospects or a much lower cost of living. You are likely to downsize once you are well and truly retired, it may be very wise to start early, especially if the housing market in your area is on the rise. The difference in the money you need to support yourself can be huge. I know people who have reduced their cost of living by more than 50 percent.
- **Maintain your professional contacts and friends**. You might think your career is over, but you could change your mind. And if you start consulting or decide to build your own business those contacts could be your most valuable asset.
- **Trim your family support.** If you got a "failure to launch" kid it might be time to light a fire. "We're moving to a one bedroom condo in Nevada, Junior, time for you to find your way". If you're still supporting kids in college it might be time for them to secure their own loans. They can pay off their loan over their career–which is ahead of them. You're going to have to live with what you've saved. Big difference. Think hard about this one. If your funds outlast you, then Junior can use his inheritance to pay off that loan. If

they don't, will he be willing to support you in your dotage? Will you want him to?

- **Collect all the unemployment you can.** Sure, there's stigma. Suck it up. You paid for unemployment benefits all your working life. If you were laid off you are eligible immediately. Even if you took early retirement there may be direct benefits available if you are actively seeking another job. And be careful how you let your former boss characterize your leaving. If he pushed you out but gets you to call it retirement out of pride, then you don't get full unemployment benefits. If you are a long time, well compensated employee and you think your employer might be showing you the door to cut costs, get out ahead of the issue and speak with a lawyer that specializes in employment issues. They can give you a map for getting the most out of leaving.
- **If you must collect social security make sure you are going about it in the most advantageous way.** If you are married there are some refinements. Research the best way. We'll cover this lightly in the Social security chapter, but you might be well served to get expert advice or buy a book on social security. There are several good ones and lots of info on the internet. As always, Bogleheads is a great place to browse.
- **Adjust your expectations.** Someone offering you a job at 50% of your previous pay is not insulting you, they're offering you a job.
- **Get fit.** Exercise and sport will boost your energy, beat depression, boost your confidence, and make you healthier. Read the diet and exercise chapters and get going.
- **Revamp your health insurance.** COBRA lets you stay on your employer's

policy for 18 months, but you have to pay the full cost. You may be able to do a lot better using the Affordable Care Act. You need to know your options. An hour of a specialist's time can be an inexpensive investment.

- **Revamp your finances.** This might be a great time to convert your IRA to some flavor of Roth IRA if your income is going to be low.
- **Do stuff.** Hobbies, sports, travel, education. Dig into the chapters on these things for ideas, and get going. If you sit around waiting for things to happen you'll stagnate. Start making this the most interesting and fulfilling time of your life–even if you take on other work.
- **Embrace the change.** You can live a fulfilling life with less stuff. Recognize that everything you own, owns you. Simplifying means less maintenance, less cost, less distraction from the things that really matter to you. I could have a happy life with my wife, a van and a surfboard. Nice that I don't have to, but great to know I could.

Homework Assignment: Even your career is on solid ground and there is no prospect of getting the boot, view this chapter as an opportunity to explore how you can change your life and your retirement prospects for the better. Take a look at your current expenses, the stuff you have, and take a practice run at reducing your expenses substantially. If you have a vacation home, and RV, a boat that you rarely use, anything with low utilization, consider the effects of selling them and renting something similar if you really need or want it. Even if you don't pull the trigger, it's a useful exercise to examine the effects of simplifying and budgeting. The proceeds from simplification can be put to work to build your nest egg.

A friend of mine sold the beach house he rarely used and couldn't rent because of local regulations and bought a rental property with a 1031 tax-free exchange. The rental income will provide a substantial part of his retirement needs. He converted an expensive, non-performing asset into an equally valuable asset that generates income.

Followup: Did you start gathering information on your assets and retirement investments. You're going to need them. We're going to work on how much money you need to support retirement soon. And you need to know what you have to make the later chapters valuable and actionable.

Changing Your Life Story

Critical Stuff: The biggest barrier to a fulfilling life is generally you.

In This Chapter: Why SNL sucks. Get off the couch. Tell your new story. Live your new story.

Before we dive into financial aspects, let's talk a little about the kind of life you want to have. It's never too late to build the life you want. A big part of planning for retirement is making sure that what you're doing today counts, because none of us get to say what tomorrow brings. Retirement is the perfect time to assess how your story has been playing out, and do what you can to make it more satisfying. And then start right away, because while we control what we do today, and we can make efforts to plan for the future, you can't mistake that plan for anything resembling certainty.

Picture what you did last week. Can you remember much? How about looking back five years. Unless you took notes, the only things that come to you are the exceptional things, and a few mundane things that somehow pop up. Does that matter? For a lot of people the answer is yes, even if they aren't sure why. The notion of life slipping by as a series of indistinguishable incidents just isn't appealing. Maybe it's time to rewrite your life story.

Please understand that your life, and your life story are two different things. Your life is the everyday stuff you have to or want to do. Your story is the incidents and events that you'll remember. Good, bad, scary, happy, sad–all the

extremes. Buying your first motorcycle is probably part of your story. Buying yet another grocery getter is part of your life. The only way you'll remember a night spent in front of the television is if it's the only night you ever spend that way. There's a reason you fall asleep watching late night TV–it's ordinary, no matter how funny the host is, and it requires nothing of you. It presents no risk, requires no hardship or effort. You won't fall asleep while a grizzly bear tears your cooler apart to get at the salmon you caught that day.

A little digression: Remember the first time you heard Dom Pardo say "Live, from New York, it's Saturday Night" and the show was so amazingly funny you fell out of your chair. Now you probably think the writing is stale, the acting is poor and the comedy lame. But if you watched an old SNL video you'd be stunned at how uneven the quality was. A little brilliance surrounded by lots of flops. It was fun because it was new to your experience, but now it isn't. Passive entertainments like television are inherently boring because they require nothing of you. They have to become increasingly strident to keep you engaged. That's one reason why news has devolved from journalism to sensationalism, and instead of scripted TV we have voyeuristic "reality" shows that do best when everyone in them is psychotic.

And that, gentle reader, is why you may need to rewrite your story, because a passive story is a boring story and a boring story is a bad story.

The Wall Street Journal ran an article recently about the biggest suprises in retirement. The gist of the article is that your retired life is going to be a lot more different than you expect. Any thinking person understands retirement will entail changes in finance, the people you socialize with, activities, your routines, and the kind of tasks you perform. But few people understand the kind of risks inherent in retirement, or that taking risks, and relishing them, is

one of the keys to a successful retirement. Risk is part of a balanced duo: Risk/ Reward. Sometimes good or bad things happen without taking a risk, but that's outside your control. Pushing the boundaries of the life you lived when you worked might make you uncomfortable, but it's the path to reward.

You might be happy with your *life* as you live it, but the *story* could probably use some work. All the suggestions below are about doing things that are more indelible because they are out of the course of your normal life. Before you dive in, understand that good stories demand certain things. If you're comfortable on the couch and enjoying your life of mundane happenings, then take a little care. Stories demand conflict, suffering, new risks, lots of effort, uncomfortable situations, and perhaps triumph (or not). It's your story, your choice. Here's some ways to spice it up:

Small Ways
Small ways just mean small risks. They might take a fair amount of effort and they can have big effects.

The Bucket List
This is a tried and true approach that's particularly effective for people who like notebooks: If walking into a stationary store leads you directly to the blank book section and has you thumbing through the moleskines looking for some new format that will justify adding it to your junk drawer full of notebooks with five pages used, then this is for you. Dig out a cool one that will fit in a pocket and take some abuse. Better yet, take a trip to the stationary store, this is justification for a new notebook!

Here's the format for building a list–first five or so pages up front are reserved for the list, one item per line. When you add an item to the list, go to the next

blank page in the notebook and title it with the list item. When you check an item off the list you go to that page and add the details: Date, impressions, etc.. The empty holes in the notebook burn at you much better than an unchecked list item will.

Bucket lists grow without limit as you start using them, but you might need some help getting started. Here's a few you might consider. Visit China, learn to surf, drive a race car, have dinner at the French Laundry, start an online business, take a random class, do a marathon.

Random Acts of Weirdness

Much less formal, but equally effective is the random act approach. To get this rolling, pick a day of the week when you have some time. Perhaps Sunday. Now you need something random to do. And once you find something, you have to commit to doing it. Lots of approaches are feasible, one is to pick up whatever local free newspaper has event listings. Pick a number from one to ten, scan to that listing and commit to doing it. Don't rule something out because it's outrageously not you. that's where you find the true adventures. You're a manly man and you really don't want to go to a rehearsal of the Gay Men's Chorus. Tough. Go.

Another, less challenging way is to generally scan for interesting things in the paper or on the web and commit to doing the first thing that sparks some interest.

You'll see one word pop up several times in this article: Commit. Procrastination is the enemy of adventure. Dozens of things will pop up to help you avoid going to that lecture on orchid cultivation. Commit. Go. The way I stop myself from procrastinating is to mentally say "how will this be different

later." If you don't do it now, why will later be better? Procrastination is just laziness and avoidance. Commit.

Road Less Traveled

Get on google maps and print out a map of your neighborhood. Take a marker and mark all the roads you know you've been on. Chances are that within a five mile radius there are lots of streets you've never seen. Get on your bicycle, fire up the motorcycle or lace up your walking shoes and go explore them. No cars unless you own something sporty and there looks to be some nice twisties, or you feel like a cruise.

Change your Modus Operandi

There's probably some basic characteristic in the way you approach a common thing that defines you to some degree. For example, I'm shy and a bit reserved. I don't like to talk all that much, and when I do I have an aversion to telling stories (though I catch myself doing it often). That would probably surprise a lot of people, I seem like an extrovert, but that's a learned behavior, people who know me best know that's true. So recently I decided to change an aspect. When I meet a character, I engage with them and coax them into telling me about themselves. I've met some astonishing people recently. One was an old guy who was muttering to himself and being actively avoided by folks while he waited for a prescription. He had green sneakers, yellow socks, pants and shirt made from matching aloha print fabric, and a panama hat. I started talking with him and discovered he's 92 years old, speaks four languages–five if you include pidgin. He told me about his wood carvings and furniture making, his careers, his kids. Fabulous, memorable and fascinating, and all I invested was fifteen minutes.

Become Great At Something

A friend of mine did this as a lifestyle, though his approach had an odd twist. When he undertook some hobby or discipline he would apply huge effort to it until he mastered it. For example, when he decided to play the banjo he spent six hours a day learning and practicing–for several years. He got good enough to play with bands, and even do some studio work. At the same time he started making banjos. He improved his technique and style until his banjos were works of art, and people were willing to spend substantial amounts of money for them. He got as good as he wanted to be, and then he quit and started something new. That's the twist I didn't get. He walked away from all his effort.

The *Become Great* part has clear benefit. Anyone can decide to learn something new. but it won't make for a great life story. Lots of people play guitar a little, or surf a little, race cars or fly airplanes. But the people who become GREAT at something add tremendously to their story. What does it take? Mostly it takes a plan, effort and discipline. Talent helps, but you can become great without talent. Seeing that through all by itself will make your story far better. Choose the right thing and it can change your life in many ways.

Big Ways These are changes that have larger consequences and bigger risks. Remember always that risk is the partner of reward. More simply put, *no balls, no blue chips*. Doesn't always work, but that's why they call it risk.

Get A Job For Fun

First of all, my apologies if you're struggling to make ends meet in the current economy. I know a living wage is a very serious issue for lots of people. If you're one of them, read on, you might find something helpful. I'm not making light of the issue of employment, there's lots of ways to tackle every issue and I'm talking about some you might find useful.

Whether you're already employed, retired, or between jobs, adding a job for fun can be a wonderful thing for adding spice. Especially if you really don't need to do it. For example, I'd kind of like to be a bartender. I'm tempted to look for a way to do that. I know that with the kind of drive I have I could get bartending job, I just don't think I want to commit the time to something I'd be playing at, and I'm not happy with the idea of taking a working wage job away from other people just for fun. I've also looked at the renewable energy field and think it might be interested doing those kind of projects. Meet new people, learn new things, aim at some big projects perhaps. I don't necessarily need to work, but I know there's a big difference in intensity level between committing to do something and just playing around. And for me that defines JOB. A commitment.

A job for fun is one that you can imagine yourself really enjoying doing, but you don't have current skills for. The path is straightforward. Assess the opportunities and time frame, get the requisite skills and certifications, find a job. Most people won't undertake the level of effort required to get a job. No insult intended, but there's simply a gap between the effort that people expect, and what might be necessary. The most effective way to find a path to your objective is to leverage something you already know how to do. For example, if I get serious about being a bartender, my first step will be to write a book about bartending. I'll do the research, learn to make all kinds of drinks–current and obsolete. I'll target the best and most interesting bars in town, interview bartenders and bar owners. Learn about the economics and the challenges of the business. Write about the conversations that bartenders have with their customers. How they handle problems, how they make customers happy or satisfied they came into the bar. I'd reflect what I learn back to the owners and incorporate their ideas. Probably I'd help the owners examine and optimize

their marketing as an experiment and maybe build a website for them or fix up the ones they have.

I know, that's crazy. It's a huge amount of effort. But then I'll ask for a bartending job. Think I'd get one? Think I'd be great at it after all that? How much better will my chances be than someone who fills out an application and hopes for a call. Obviously that's not the only way to get a job like that, but it's an idea of the kind of effort someone could make in support of getting the job they want.

It takes what it takes.

Of course you can also apply a similar effort to improve a job you already have. Burned into my memory is a conversation I had with my very bright niece who had a summer job working in marketing (her course of study in college) for a sports product company. "They told me I'd be helping with marketing, but all I do is a little filing. I spend my day reading news on the internet and playing solitaire on the computer". I was so blown away I couldn't say anything. I know it's not just me that sees why this is such a waste. No bad reflection on my niece, few people are taught that what it takes to love a job is to invest everything you have to give into it. It's not a reflection on her generation–we've had a few interns at the advertising agency I co-founded who somehow knew that and who run so far out in front of what we ask them to do that all we can do is marvel. They do everything we ask them to do, and then they do all the stuff they want to do and show it to us. Of course we'd hire them if they chose to end their college career and just go straight to work. They're not waiting for someone to hand them an assignment–they are inventing the job they want. They'd be running the company in five years.

It's wonderful to have a mentor that puts you on the path of a good story. It's too bad my niece didn't have one for her first job. But there's a reason great mentors are celebrated–they are rare. It's easy to do things in a passive way, to wait for a boss to give you a "marketing assignment". But who says your boss knows anything valuable at all? Inventing the job you want is hard, and adds risk. That's what makes it a good story. Easy = boring.

Instead, she could have done the filing she was asked to do, and then spent her "solitaire" time taking a comprehensive look at what the company was doing for marketing. Done a careful analysis of their capabilities, culture, mentality, their appetite for risk (no point in proposing solutions that scare the pants off your boss). Then put together a plan that would improve marketing results. Even if they ignored the suggestions completely and snickered at the naive effort she would have learned a great deal. The problem with wasting time at work is that it's *your* time. It's *you* who gets shortchanged. View the business as a pool of resources that you might be able to tap into, and your job as an opportunity to grow. Working hard and doing more is pure self-interest, any benefit to the company is incidental.

One of the best places to get a job for fun is in volunteering. But that doesn't mean you need to stand in soup line, dishing out meals (unless that's what you want). Apply your skills and drive to the things your target organization needs. Make it different, better, more successful. If you can do a job without pressure, without the need to satisfy anyone but yourself, then it's really fun and fulfilling.

Be A Hero

You are the hero of your own story, but is it the best story you could create? Is there a better story, can you be a better hero? I'm tempted to leave this

thought right here and let you build out what this means for yourself. But this might be the most important element of this article. I would *never* talk with someone directly about issues like this, it's too judgmental and too much meddling. But here's what I've seen. People get trapped in a bad story. The way their relationship works with their wife and kids, their boss, their friends, and themselves. Some folks try to change the outcome by changing themselves a little. But it's like watching a movie where you *know* if the hero would just tell people what he's up to that the outcome would be so much better. "Why won't he tell them" you mentally scream at the screen. Sure enough, the hero's actions are misunderstood, people do the wrong things, it all goes badly.

And then you go home and don't bother to tell your wife and kids you love them "because they should know that".

To be a better hero you need *to tell* a better story. The first step is to figure out what the story should be like and what *you* have to do and what you want to commit to. The next step is to tell people around you what they can expect from you, and start living the story. You can only change yourself. You can't change your environment greatly or quickly. You can't change other people. But you can improve the chances that changes you make and stay with get translated into a better story. It takes patience, and it takes a little communication. You can't constantly talk about your new commitment because you'll bore the socks off people, but for them to be influenced they need to know what you're up to. Understand that it's hard. Barriers pop up in the most unexpected places. Your commitment will be challenged. Sometimes you'll move toward the better story, sometimes you'll be pushed away. That's how you know it's a good story. Bad stories are effortless.

Letting other people know what you're up to provides a feedback loop and can

increase your commitment. When I decided to quit smoking I told all my friends and acquaintances. I made it clear that I thought smoking was disgusting and a stupid habit that trapped weak-minded people. I created a situation around myself that made it difficult for me to back out.

Change Everything

This is the bonus round. When I told my friend Cameron we were going to sell our beautiful home in Portland and move to a simple house in Hood River he said “that’s great, people should reinvent their life every so often”. I’ve always appreciated his wisdom, so it didn’t surprise me that he wasn’t shocked that I’d be ready to give up the dream home that took us years to build and a comfortable life in Portland to go play hard in Hood River.

The reason was simple, we had settled into a repetitious life that lacked the hills and valleys that make for an exciting story. We didn’t want more of anything, we wanted simplicity and the opportunity to try new and difficult things. We wanted to rewrite the story. So we changed everything, at a time when we probably should have been hunkering down. The value of the house we sold was probably as low as it ever will be. The story is worth more than the house and the money.

We only have one story. Make it as good as you can.

Where to Retire

Critical Stuff: You're probably living in the wrong place to retire. If you're going to move, choose wisely, with your eyes wide open.

In This Chapter: Staying put or choosing the best place for your situation.

Most people retire where they are. A few have some idea of a magical place they want to retire to–Florida and Hawaii spring to mind. But some folks retire where taxes and living conditions are optimal. The difference can be immense. For example, my wife and I chose to live in Hood River, Oregon and Maui, Hawaii. Two wonderful places to live, but two expensive places to retire. The cost of living in Maui is high, and the income tax rates in both places are punitive.

If I had simply chosen to live across the river in White Salmon, Washington, my cost of living would be about 10 percent less because Washington has no state income tax. That didn't look like a huge deal when we were considering quality of life issue–we wanted to live in Hood River. But when the income stops, things start getting real, and ten percent is important. Not enough to make me move, but it's not out of the question, and if I were making the decision now I might come up with a different answer, even though we love Hood River.

Of course, your life changes when you retire, and even though we didn't think this through, the reality is that income tax isn't quite such a big deal when you don't have income. That's called retirement. And that's what we did. So even though the ten or so years of settling in and getting truly retired (selling off the last of our business) cost us more in Hood River, Oregon versus White Salmon,

Washington–we are where we want to be. We are enjoying our lives the way we want to. And now it's not ten percent, it's more like three percent.

Loving the place you chose to be is a big deal, and it's worth some bucks. Choosing a place where there are people like you, interested in doing the things you want to do–that's priceless. That's the kind of social interaction and mental and physical stimulation that will keep you healthy, engaged and vital. Books that just talk about the money are missing the fundamental issue of WHY you want some money–so you can do what you want to do.

So understand that place ratings like the bankrate table below are mostly about places that suit the average person–they are about living, not about having a life. No surfer would live in any of the top ten states.

But still, you need to know what you're getting into. A company called Bankrate looks at cost of living by state each year, and they look beyond that, to healthcare quality, satisfaction of the residents, crime rates, etc.. The order shifts a little year to year, and if you're looking for the full listing or the yearly update, then click the link.

Check out how your state ranks for retirement

overall rank	state	cost of living	crime rate	community well-being	health care quality	tax rate	weather
1	Wyoming	19	5	20	37	1	8
2	Colorado	30	25	6	14	19	3
3	Utah	7	22	19	7	23	6
4	Idaho	3	2	27	21	27	7
5	Virginia	22	4	15	13	21	10

Check out how your state ranks for retirement

overall rank	state	cost of living	crime rate	community well-being	health care quality	tax rate	weather
6	Iowa	11	12	4	5	22	39
7	Montana	27	19	8	24	13	9
8	South Dakota	26	11	31	15	3	29
9	Arizona	32	41	2	22	17	5
10	Nebraska	9	20	16	11	26	21
11	Minnesota	33	15	5	1	45	48
12	Maine	38	3	28	4	37	27
13	North Dakota	29	10	23	16	15	43
14	Kansas	10	32	13	25	25	17
15	Vermont	41	1	3	10	42	35
16	New Hampshire	39	7	17	6	7	49
17	Wisconsin	25	13	21	3	46	46
18	Massachusetts	43	21	22	2	40	11
19	Delaware	37	42	7	8	36	18
20	Michigan	18	29	14	17	30	45
21	Pennsylvania	34	16	36	23	41	22
22	Washington	36	36	9	19	24	40
23	Texas	14	38	37	41	4	23
24	North Carolina	28	33	30	30	34	19
25	South Carolina	24	48	26	35 (tie)	9	16
26	Illinois	21	24	32	32	38	36

Check out how your state ranks for retirement

overall rank	state	cost of living	crime rate	community well-being	health care quality	tax rate	weather
27	Nevada	35	44	45	43	8	4
28	Florida	31	39	18	35 (tie)	20	28
29	Indiana	5	30	34	40	29	34
30	Tennessee	2	47	40	38 (tie)	6	24
31	California	46	31	10	34	47	2
32	Maryland	40	34	11	27	44	13
33	Georgia	15	35	33	42	16	20
34	Ohio	17	27	41	31	33	37
35	Alabama	12	43	35	33	10	41
36	Mississippi	1	23	44	47	11	42
37	New Mexico	13	50	38	48	14	1
38	Rhode Island	42	18	46	9	43	12
39	Connecticut	48	6	24	12	48	14
40	Oklahoma	4	40	29	49	12	26
41	Oregon	44	28	12	29	35	31
42	Missouri	16	37	39	38 (tie)	18	38
43	Kentucky	6	9	49	45 (tie)	28	33
44	Hawaii	50	26	1	20	31	32
45	New Jersey	45	8	43	18	49	15
46	Louisiana	20	49	48	45 (tie)	5	44
47	West Virginia	23	14	50	50	32	47
48	Alaska	49	46	25	28	2	50

Check out how your state ranks for retirement

overall rank	state	cost of living	crime rate	community well-being	health care quality	tax rate	weather
49	New York	47	17	42	26	50	25
50	Arkansas	8	45	47	44	39	30

Read more: http://www.bankrate.com/finance/retirement/best-places-retire-how-state-ranks.aspx#ixzz3Wm9zFRWg

So let's talk a bit about this ranking. As you can see, I picked the 41st and 44th worst places to retire. I earned my financial moron status. But I've never heard anyone say "I feel so bad for you, living in Hawaii and Hood River." From a quality of life perspective, I'd say the list is a little weird. From a weather perspective, it's too simplistic. Hawaii ranks 32nd?? Behind places like Massachusetts–digging out from a winter of blizzards, and far behind Arizona, where you can't go outside during the day in summer for fear of what remains of your hair catching fire?

They also look at crime on a statewide basis, ignoring the simple fact that crime tends to be concentrated. And Hawaii ranks 20th on health care, whereas anyone living here knows that the most important thing you can have in the event of a health care problem is a plane ticket to the mainland. Probably more true on Maui than Oahu, but certainly true where I live.

I'd use this chart mostly for the cost of living, where it coincides well with my experience. Hawaii–the most expensive state, and Oregon 44th most expensive. OK, I agree. Bankrate took heat previously for being so focused on the cost of living and taxes, but I think this chart wanders away from being

valuable by adding in factors that aren't representative of the areas people might move to and using simplistic factors like precipitation as indicators of weather.

Looking at this chart you can see why New Mexico, Arizona, and Florida are retirement meccas. As for the rest of the choices, I've spent time in a lot of those states that sit on top thanks to a low cost of living and low taxes, and they seem like they'd be brutal places to retire. Winter in Wyoming? No thanks. It's beautiful, but the wind alone will blow you all the way to Taos.

Financial aspects and gotchas

Before you contemplate moving you need to look at your savings and some other financial issues to make certain you aren't screwing yourself. Most issues can be resolved, but you need to pay attention and do everything right.

Bonds–If you've invested in laddered municipal bonds, you need to consider how a move can affect the tax-free status. If you leave the state then you might owe tax on the coupon rate of the bonds, depending on how that state taxes income or intangible assets. Might not be a big deal, but don't let it be a surprise. For example, say you move from New York to California. Presto–now you owe California tax on the bond income.

Let's say you choose to swap out your bonds from New York to your new home in Florida. But before you do that you need to calculate if the yield on your NY bonds minus taxes is greater than what you would get from Florida munis, and you have to include commissions and taxes on any gain in the bonds at the time of sale in that calculation. Commissions in bonds are usually 1 percent,

and that's for both buying and selling. You sell $100K worth of NY munis to buy $100K worth of Florida munis and it costs you $2K.

But then you have to ask yourself if it makes sense to keep owning munis at all. If your income has dropped precipitously with retirement, then is a tax-free muni worth the lower interest rate and higher risk such bonds carry? As a thumb rule, if you're in the top tax bracket (about 40 percent) a taxable bond has to yield 3% more to provide the same return after tax. In the 30 percent bracket it's more like 2%, and in the lowest brackets, there isn't any difference. It might make more sense to move to treasuries or corporate bonds. Treasuries are lower risk, corporates yield more. Your answer depends on your new tax rate and your appetite for risk vs. reward. Better yet, switch to an indexed bond fund and reduce your risk dramatically.

You also need to look carefully at taxes and costs other than individual income tax. If you move to a place like Florida (or Alaska, Nevada, South Dakota, Texas, Washington, and Wyoming) that have no personal income tax you have to look at other taxes. Florida taxes intangible personal property like cash, stocks, and bonds other than Florida municipal bonds. The current rate is around two bucks per thousand with the first $40K (joint filers) exempt and the next $200K assessed at $1 per $1000. So it's not a huge tax, but it happens every year, so it compounds, and it's not just bonds, it's all investments. That's how they get all those bluehairs to pay for infrastructure and services. Oddly enough there are three states that have personal income tax but do not tax out of state munis: Indiana, Utah, and North Dakota. Go figure.

Annuities–If you have money in annuities you may have bond coverage required by the state and provided by your annuity company to cover some part of your annuity in the event the company fails. Coverage varies from

state to state, and some states continue coverage even after you move, but some don't. If you consider this additional bit of security to be important, then make sure you know the rules of the state you're leaving and the one you're moving to. We'll cover how to optimize this coverage later.

Moving to retire has lost favor in recent years, a lot of retirees stay close to home because of family, and then find they have less and less contact with their offspring and relatives as they age. I think it's very useful to have a clear idea of what it costs you to do stay put and decide if it really is worthwhile. States that are attractive to retirees tend to have more opportunities for socializing with people you share a common bond with–social interaction is a very important part of a happy retirement. And for a lot of us, moving away severs or at least stretches commitments which might be good to minimize anyway. In more brutal terms, if you're 2000 miles away you won't be involved in all that family drama, and there will be fewer outstretched hands. Something to think about.

Scratchpad

If you want to invest in stocks on the long side yet you fear a bear market, then you don't have many options. But they are out there, including Consumer Staples Select Sector SPDR ETF (XLP) and Vanguard Dividend Appreciation ETF (VIG). XLP will not appreciate in a bear market, but it will hold its own better than an ETF like SPDR S&P 500 ETF (SPY). By investing in what consumers need opposed to what they want, you will be limiting downside risk while also collecting a 2.66% dividend yield. XLP also has a low 0.15% expense ratio. If you want to maximize your potential, strongly consider implementing a dollar-cost-averaging strategy, knowing that it will only be a matter of time before XLP begins to head north again. Just use caution and take it slow, because deflationary environments can be damaging to any ETF with long exposure.

VIG won't hold up quite as well, but you will be investing in companies that hike their dividends, which indicates they're fiscally-sound companies that should be capable of weathering the storm. VIG should weather the storm as well. Currently, VIG comes with a 2.44% yield and a low 0.10% expense ratio. (For more, see: *Traders Look to Dividend Funds*.)

The Bottom Line

Many investors seeking resiliency through diversification will opt for SPY, but that doesn't make sense because it means you will be exposed to all large-cap companies across all industries. Instead, if you want to stay on the long side and seek diversification and yield, then stick with the areas of the market that

will offer the most resiliency. And if you seek resiliency with the potential for appreciation and yield, then consider ETFs that track Treasuries. (For more, see: *The Importance of Diversification*.)
Read more: Why You Shouldn't Waste Time Picking Single Stocks (XLP,VIG) http://www.investopedia.com/articles/investing/101915/why-you-shouldnt-waste-time-picking-single-stocks.asp#ixzz3qurnZLoP
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Taxes

Taxes are an important consideration for most investors. However, tax considerations become even more important when an investor focuses upon generating income. That is because many individuals will find that income is taxed at a higher rate than capital gains.

Tax avoidance strategies are heavily dependent on an individual's unique circumstances, and should be devised in consultation with an accountant or financial advisor. However, one simple step that some investors can take is to hold income-generating assets in tax-sheltered accounts (such as retirement accounts) while holding non-income-generating assets in fully taxable accounts. Such an approach would help to minimize current taxes on income generated from the overall investment portfolio. However, this approach would not work if the investor needs portfolio income to meet current cash flow needs. In these circumstances, an investor will have no choice but to receive the income and pay taxes on it. (For more, be sure to read *A Long-Term Mindset Meets Dreaded Capital-Gains Tax*.)
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High Dividend-Paying Stocks

Dividends change over time as companies become more or less profitable and as investors shift their emphasis from capital appreciation to current income. However, there are certain types of stocks that have traditionally paid large dividends. Historically, companies that are large and well-established pay higher dividends than those that are small or new. Therefore, investors are probably better off focusing on an index such as the S&P 500 for dividends as opposed to an index such as the Russell 2000.

Additionally, rapidly growing industries and companies often pay low (or no) dividends because they prefer to reinvest their profits into the business. On the other hand, slower growing industries and companies have a tendency to offer higher dividend payouts. For instance, technology and biotech companies often pay little or no dividends while utility and drug companies are well known for offering high dividend yields. (For more, check out Dividend Facts You May Not Know.)

Safe Stocks

In many instances, it may be appropriate for an investor whose primary portfolio aim is safety and income to own some stocks. In these instances though, the investor will likely wish to minimize the risk of their stock portfolio to the extent possible. One way to do this is to invest in broad-based indexes of stocks as opposed to individual stocks. Investing in this manner produces greater diversification and reduces the risk that a large holding of a single stock will perform poorly. Generally speaking, high dividends come from mature, stable companies with consistent earnings streams. These are often the same companies whose stock prices are unlikely to display exceptional volatility.

Therefore, a focus upon income generating stocks can often also result in a portfolio of relatively low volatility stocks.

Investors should be aware of the relative stability of the dividends they are receiving from their stocks. While coupon payments from bonds or certificates of deposit are contractually guaranteed, dividends are paid at the discretion of the company. While many companies are committed to paying dividends at a consistent level, this can and does sometimes change. For instance, when a company experiences financial difficulty or the overall economy enters a downturn many companies choose to conserve cash in order to fortify their balance sheets. A common way in which they do this is to reduce or eliminate the dividend payout to common shareholders. Investors who depend on stock dividends to meet a portion of their living expenses should carefully calculate the impact that this could have on their finances.

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Bonds provide consistent income due to their periodic coupon payments. Furthermore, bond issuers are contractually obligated to make these coupon payments; in most instances failure to do so allows bondholders to force the issuer into bankruptcy. Therefore, bond issuers view timely payment of all interest and principal as an extremely high priority. This enhances the likelihood that bondholders will receive their payments as scheduled.

Corporate bond coupon payments are considered more stable than company dividend payments. That is because companies are legally bound to pay

interest on their bonds before considering payment of any preferred or common stock dividends. Finally, many other investment options have infinite life spans, but bonds have stated final maturities. This means that, in the absence of a default, an investor knows exactly when they will receive their principal back as well as the exact dates on which they will receive income distributions in the interim. This cash flow certainty is an invaluable benefit to investors dependent upon portfolio income to meet their ongoing expenses.

Types of Bonds to Avoid

While most bonds make attractive additions to a portfolio designed for safety and income, there are some bonds that might not be appropriate. In constructing a safe portfolio, an investor should focus on investment-grade rated bonds. These are bonds that carry a minimum credit rating of 'BBB' or higher. Bonds that would fall into this category include US Treasury securities, U.S. government agency securities, most mortgage-backed securities (MBSs), investment grade rated municipal securities, and investment grade rated corporate bonds. Bonds that are considered less safe include high yield junk bonds (rated below BBB), emerging market bonds and some securitized products. (To learn more, see *Junk Bonds: Everything You Need To Know*.)

Although bonds carry a promise that the principal will be repaid at a stated maturity date, circumstances do arise in which an investor might want (or need) to sell their bond prior to maturity. In anticipation of this possibility, it is important to realize that the longer the maturity of a bond the greater an investor's exposure to possible capital loss if he or she wishes to sell prior to maturity because long-term bonds are more sensitive to changes in interest rates. Therefore, investors interested in safety should concentrate on bonds with maturities of 10 years or less. Generally speaking, bonds with maturities

beyond 10 years do not offer substantially higher income, but they do carry a greater possibility of capital loss if an investor wishes to sell prior to maturity.

Investors interested in cash flow should also be aware that some types of bonds do not offer reliable income payments. For instance, zero coupon bonds do not offer current income but instead sell at a discount to their face values. With these bonds, investors profit from the difference between their purchase price and the final maturity value. In the interim though, investors do not receive any income, making them inappropriate for investors who depend on current cash flow.

Mortgage-backed securities and asset-backed securities also may not be appropriate for investors seeking consistent income. That is because instead of paying principal upon final maturity, these types of securitized products usually pay both principal and interest on a monthly basis, meaning that their cash flow pattern is more irregular than that from most other types of bonds. Because of these irregular cash flows, securitized products offer additional compensation, making them an attractive option for some investors. However, if stable income is a priority, an investor should consider other types of bonds.

Building a Safe Bond Portfolio

What is considered an "optimal" bond portfolio will differ depending on an investor's circumstances and objectives, but some general advice can be given. A bond portfolio should be concentrated in highly rated, investment grade securities and should be invested in a wide range of maturities. When investing in bonds it is also important to realize that their long-term returns are lower than those of stocks. Therefore, fees have a greater impact on an investor's total return in the bond market than in the stock market. This means that while

focusing on fees it is always prudent when investing, it becomes even more important when constructing a bond portfolio.

Conclusion
This chapter has discussed how in many ways bonds are the ideal asset class for investors interested in safety and income. Investors should still tread carefully though, by minimizing their use of risky bond types such as emerging market bonds and high-yield bonds and concentrating their holdings in those bonds with maturities of 10 years or less. Investors interested in income should also focus on bonds that provide a steady stream of cash flows. An ideal fixed-income portfolio for many individuals will be comprised of government securities, government agency securities, high-grade corporate securities and high-grade municipal securities (in taxable accounts.) Such a portfolio will provide a steady stream of income with minimal risk of principal loss. (For more, check out *Top 4 Strategies For Managing A Bond Portfolio*.)
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There are many investment options available at the local bank. Because they specialize in savings and investment alternatives that are designed to provide safety and income, banks can be a great place to store rainy day funds or cash that might be needed in the not-too-distant future. Although many banks also offer brokerage services, these services function similarly to those found at standalone brokerage firms, so in this chapter of the tutorial we will focus on traditional “bank products” as opposed to stocks, bonds or other products that might be sold through the bank’s brokerage unit. This chapter will also

examine the benefits and drawbacks of traditional bank products when compared to brokered products.

Savings and Money Market Accounts

The most common investment alternative available at the bank is the savings or money market account. These accounts are often linked to a checking account. However, while checking accounts are designed to fund ongoing expenses, the savings or money market account is designed as an investment tool to collect excess funds. Benefits of a savings or money market account include easy access to funds, safety and familiarity. However, they generally provide very low returns and over time may not even keep pace with the rate of inflation. (See our Money Market Tutorial for more on the topic.)

Certificates of Deposit (CDs)

Certificates of deposit (CDs) are alternatives to savings and money market funds. With a CD, an individual deposits money in the bank and agrees to keep it on deposit for a stated period of time. The maturity of CDs can range from very short (one month) to fairly long (five years or more.) Regardless of the maturity, the two defining characteristics of the CD are that the money cannot be accessed prior to maturity (without penalty) and the rate of interest is usually higher than on a money market account.

CDs provide an attractive alternative for individuals saving for a rainy day or an anticipated future cash flow. Using CDs allows an individual to earn a slightly higher rate of interest than if the money had been left in a savings account and also helps remove the temptation to spend the money before it is truly needed. CD rates vary widely from bank to bank so it often pays to comparison shop before depositing money into a CD. (If you're looking for bigger yields with

limited risk, callable certificates of deposit (CD) might be right for you. (Learn more in our article Callable CDs: Check The Fine Print.)

Benefits of Bank Products

For investors concerned with safety, the most important benefit of investing at the bank is the principal protection that many of these alternatives provide. Many countries protect bank depositors against losses in order to guard against the possibility of a run on the bank and accompanying financial crisis. In the U.S., this protection comes in the form of FDIC insurance. FDIC stands for Federal Deposit Insurance Corporation, and the FDIC guarantees all deposits up to a certain level. Historically, the insurance amount has been $100,000, but in 2009 the insurance amount was temporarily increased to $250,000, and is scheduled to go back to $100,000 in 2014. This means that bank deposits, money market accounts and certificates of deposit are guaranteed by the U.S. government, making them among the safest investment alternatives an individual might consider. (Learn if your assets will be protected if your bank goes belly up, in Bank Failure: Will Your Assets Be Protected?)

Another advantage is that an individual often already has a relationship at the bank through a checking account, mortgage, or credit card. Therefore, using bank investment options does not require finding another firm with which an individual is comfortable doing business. Furthermore, consolidating one's finances in a single location reduces the number of monthly statements and makes it easier to view an entire portfolio in a holistic manner. Finally, banks are often very well known in the community and a sense of familiarity can provide comfort to individuals unfamiliar with some other investment options.

Drawbacks

While investing at the bank provides many benefits, there are also some

drawbacks to consider. Because banks primarily focus on very safe, short-term investment alternatives, the returns that they offer are generally low. Therefore, while some of the options available may be appropriate for investors primarily concerned with safety, investors interested in portfolio growth may need to look beyond the bank. Investors interested in income may also find that although there are attractive alternatives at the bank, better possibilities may exist for those investors willing to consider brokerage products.

A second drawback of investing in a bank is that many of their offerings suffer from a lack of liquidity. While brokered products (stocks, bonds, mutual funds) can generally be sold if an investor decides to reallocate their portfolio or needs the cash, many bank products do not have a secondary market available. This is less of an issue with money market accounts as an investor can simply request a disbursement from their account. However, in the case of CDs, investors who want their money prior to maturity often must pay a penalty for doing so. Penalties vary, but they can include the loss of interest earned on the investment, thereby negating the benefit of purchasing the CD in the first place.

Conclusion

This chapter has examined the role of bank products in an investor's growth and income portfolio. Investors with small portfolios may find that the bank is an attractive starting point for an investment program. These investors can use money market funds or certificates of deposit as they begin to build their savings, later on expanding into other investment alternatives. Investors with larger portfolios should probably only consider bank products for a portion of their investment portfolio. In addition to bank products, these investors will want to purchase stocks, bonds, mutual funds and other investment products

through a brokerage firm. These brokered products often offer greater return potential and may have comparable principal protection. Therefore, brokered products should make up the bulk of most portfolios. Investors can then use the bank for money market funds, certificates of deposit, and other short-term cash investments.

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Some individuals who are interested in safety and income may find that guaranteed income products are appropriate for their needs. While these products have their benefits, they also come with some drawbacks. Therefore, very careful consideration must be given prior to deciding whether these are appropriate. In this section, we will examine some of the characteristics of guaranteed income products as well as some of their benefits and drawbacks.

What is a guaranteed-income product?
There are two main types of guaranteed income products. The first of these, often referred to as an annuity, is essentially a product where, for an initial investment, an individual receives a guaranteed income stream for the remainder of his or her life. Annuities can be further broken down into fixed-rate and variable-rate products. A fixed-rate annuity guarantees a certain level of income for the term of the annuity; there is no risk that the cash flow from the product will decrease, but it is possible that inflation will gradually eat away at the value of the income stream. A variable-rate annuity is linked to the performance of an investment portfolio; income levels can fluctuate and even decline, but also have a better chance of keeping pace with inflation.

The second main type of guaranteed income product is the reverse mortgage. In a reverse mortgage, homeowners receive monthly payments from the reverse mortgage lender for the remainder of their lives. At the time of their death, the money they have received must be repaid to the lender by the estate, or possession of the house is granted to the lender. The decision to take out a reverse mortgage can be a difficult one to make, and cases of predatory lending have been reported. The AARP, an American organization dedicated to protecting the elderly and retired, has extensive free resources designed to protect senior citizens from potentially unjust lending practices. Anyone considering a reverse mortgage should gather as much information as possible before carefully considering whether a reverse mortgage is appropriate. (See *Is a Reverse Mortgage Right For You?* to learn more.)

Benefits of Guaranteed-Income Products

Guaranteed-income products essentially function like a pension plan by providing consistent monthly income payments to retirees. The main benefit of these products is that they remove the possibility that individuals will outlive their assets. Guaranteed-income products also make budgeting simpler because monthly cash flow is known in advance and is not dependent on financial market conditions. Finally, these products protect retirees from a sharp market decline that could harm their portfolio and force them to reduce their standard of living.

Drawbacks of Guaranteed-Income Products

While stable income for life is an enticing proposition, guaranteed-income products do have several disadvantages. One of these disadvantages is that individuals are generally locked into a relatively low rate of return. In other words, if an investor buys a diversified stock and bond portfolio instead of purchasing an annuity, portfolio growth over time may ultimately provide a

higher level of income than the annuity offers. This means that in exchange for the peace of mind that comes with guaranteed income an individual sacrifices the possibility of higher returns. Costs can also be high with guaranteed income products and are not always readily apparent. This makes comparison shopping absolutely vital when considering these products.

A second drawback of guaranteed-income products is that they often suffer from a lack of liquidity. In other words, once an individual has committed to an investment in a guaranteed-income product they may not be able to reverse their decision. As well, these products may not keep pace with the rate of inflation. In other words, the income the individual receives will gradually be worth less in real dollar terms as time goes by. Some newer guaranteed-income products offer protection against this in the form of cost-of-living adjustments; however, it is important to remember that the investor does not get something for nothing. Future cost-of-living adjustments are priced into the cost of the product.

Guaranteed-income products are also unattractive options if an individual dies at an early age. The longer the individual lives, the more annual income payments they receive, and the higher the “return” on their initial investment. An early death results in fewer income payments, and therefore a less attractive investment return. Therefore, general health and life expectancy are important considerations prior to purchasing a guaranteed income product. It is also important to determine whether a spouse is going to be included in the guaranteed income contract; if so, plans should be made for the annual income payments to continue as long as *either* spouse is alive.

Finally, guaranteed-income products may not be appropriate options for individuals interested in leaving a bequest to their heirs. Individuals interested

in providing for future generations might be better off building a traditional investment portfolio, spending what is necessary during their lives, and then leaving the remainder to their heirs.

Conclusion

Guaranteed-income products are perhaps the most controversial of the asset classes discussed in this tutorial. The benefit of these products is quite clear – the individual no longer needs to fear outliving their assets, and receives a consistent income for the remainder of their lives. However, there are significant costs to these products, including: potentially below-market returns, potentially declining real income, the risk of an early death, a lack of liquidity and reduced options for estate planning. Furthermore, high price structures are sometimes built into these products, and stories of predatory lending practices are common.

As the investment community begins to focus more closely on the needs of the retiring and the elderly, guaranteed-income products will likely become more standardized and more transparent. In fact, this process is already occurring. Still, individuals interested in guaranteed-income products are strongly advised to thoroughly investigate their characteristics, consult the free resources that are available, and do business only with the most reputable of providers. If individuals take these precautions, they may find that guaranteed-income products provide them with consistent income and peace of mind. (More on annuities can be found in our article Annuities: *How To Find The Right One For You*.)

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The term “real assets” refers to a broad category of investment options that are characterized by the fact that they are tangible (as opposed to stocks, bonds, and CDs which are “paper” assets.) Real assets, also sometimes called hard assets, can play an important part in any investment portfolio – including those focused on safety and income. However, there are some important caveats and additional considerations that come with investing in real assets. This chapter will discuss several different categories of real assets and analyze their benefits and drawbacks when it comes to investing for safety and income.

Real Estate

Due to the sharp real estate correction that occurred between 2006 and 2009, many individuals are hesitant to invest in real estate. However, real estate has provided an attractive investment alternative for many years and will likely continue to do so in the future. When talking about real estate, we must differentiate between actually owning physical real estate and owning securities that represent an interest in real estate assets.

Physically owning real estate can provide an excellent store of value and a hedge against inflation. Rental properties (whether residential or commercial) can also provide relatively consistent cash flow for investors seeking income. However, there are several factors investors must consider when purchasing physical real estate. Physical real estate investment can be time-consuming and can be prone to difficulties that are not present in other types of investing (i.e. fixing a broken water heater or dealing with difficult tenants.) Furthermore, real estate often requires a substantial initial investment, which can make it difficult for smaller investors to build a diversified portfolio. Finally,

real estate is less liquid than most other asset classes making it difficult for investors to raise cash if necessary.

An easier way of owning real estate is to purchase securities backed by real estate properties. These securities can be stocks (real estate investment trusts, or REITs) or bonds (mortgage-backed securities or commercial mortgage-backed securities.) When purchasing these securities, it is important to analyze the underlying real estate that backs them in order to determine how stable the cash flows are likely to be. Although owning real estate securities is easier in many ways than owning physical real estate, an investor does lose the benefit of owning a real asset. All told, investors with the willingness and ability to invest directly in real estate should probably do so; investors with smaller portfolios or those who are uninterested in the effort required for direct real estate purchases should consider securities backed by real estate. (For more on real estate investments, take a look at Investing in Real Estate and Add Some Real Estate To Your Portfolio.)

Gold

For thousands of years, investors have viewed gold as one of the best stores of value, and therefore one of the safest investments in the world. In times of crisis or market panic, investors often flock to the safety of gold, pushing its price higher. Furthermore, gold is traditionally considered a good inflation hedge and during times of inflation the price tends to rise. Despite these benefits, gold has not been an exceptional long-term investment and has suffered through lengthy periods of underperformance, which are generally followed by shorter periods of strong gains.

Nevertheless, gold may be an appropriate holding as part of a diversified portfolio focused on safety. However, it is important to remember that gold

does not provide any income and is therefore not appropriate for investors interested in generating cash flow from their portfolios.

Investors have several options for purchasing gold. First, they can go out and buy physical gold in the form of bullion or gold coins. This approach has several disadvantages, including the need to store the precious metal and keep it safe. An easier approach is to purchase shares in an exchange traded fund (ETF) that tracks the price of gold. This provides exposure to the price of gold without the necessity of storing the underlying assets. The drawback is that the ETF will charge a management fee which will slightly reduce the investor's total return on gold. A third method of tracking the price of gold is to purchase futures or options on gold; while this is an appropriate method for some investors, those most interested in safety should probably seek other alternatives. Finally, an investor can purchase the shares of companies involved in the gold industry. This method provides less direct exposure to the price of gold and is probably less desirable for investors interested in owning "real assets." (See Does It Still Pay To Invest In Gold? to find out the merits of investing in gold.)

Collectibles
Collectibles such as silver, jewelry, art, or even stamps and comic books can all be considered real assets. Many of these assets may act as a store of value and provide safety to an investor's portfolio while holding the potential for capital gains. However, most of these markets are highly specialized and investors should have a clear understanding of what they're getting into.

Many of these collectibles are intended to be purchased as part of a hobby or for other intangible purposes. Therefore, individuals will face unique challenges when attempting to navigate these markets with the intention of making an investment. Some of these challenges include a lack of information,

difficulty finding available inventory, a lack of reliable pricing data, high storage costs, and very large differences in the prices at which similar items can be bought or sold. Also, most of these assets do not generate any income. All of these factors contribute to make many collectibles inappropriate for the average investor.

If an individual is interested in collectibles as part of a hobby or for aesthetic reasons, and if the investment aspect is seen as a bonus, these assets may very well form a reasonable portion of a diversified portfolio. Likewise, if an individual has some unique advantage and presents an unusual ability to profit in these markets, they should certainly pursue that opportunity. However, the majority of investors should probably leave collectibles to those truly passionate about them and instead focus on more traditional asset classes. (Read Contemplating Collectible Investments to learn more.)

Conclusion
This chapter discussed real estate, gold and collectibles. Investing in these real assets poses unique challenges not faced in many other investment options. Investors should carefully consider these challenges before deciding whether to include real assets as part of a diversified investment portfolio. If, after carefully considering the challenges, investors do decide to purchase real assets, they will find that they often serve as an excellent store of value and as a hedge against inflation. As such, they could form a valuable component of a portfolio focused on safety of principal. However, gold and collectibles do not generate income, making them inappropriate for individuals interested in generating cash flow.

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and-income/real-assets.asp#ixzz3quwTwpMI
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When constructing a portfolio, the primary consideration is to build the portfolio that is most likely to help an investor achieve his or her financial goals. This optimal portfolio can vary greatly depending on an investor's unique return objectives and risk tolerance. This chapter will discuss how an emphasis on safety and income can be integrated into the portfolio process to help an investor build an optimal portfolio.

Return Objectives
When building an investment portfolio, an investor must determine what it is that they are trying to accomplish. For an individual, this can be any one of many things. An individual may be investing to build a retirement portfolio, to purchase a new home or to build a rainy day fund. These objectives will carry with them different time horizons, which means that the optimal portfolio in each instance is quite different. When the time horizon is very long, such as for some retirement investment programs, a portfolio can be invested in a more aggressive manner. When the time horizon is short or the funds are intended to serve as an emergency backstop, an emphasis on safety becomes more important.

In addition to capital appreciation, a goal of an investment program may be to generate income to meet expenses. This is particularly true for individuals who are retired or who depend on their portfolios for ongoing income. For these individuals, income becomes an important consideration when structuring a portfolio.

Risk Tolerance
Perhaps the most important question an individual needs to ask when

constructing an investment portfolio is: “what is my risk tolerance?” The combination of return objectives and risk tolerance will then determine the optimal portfolio and the optimal asset allocation. Again, time horizon plays an important role in determining risk tolerance. The longer the time horizon, the more risk an investor is able to take. The shorter the time horizon, the more cautious an individual should be in his or her investment approach.

The above discussion focuses on the ability to take risk, but there is another important consideration in determining risk tolerance. In addition to ability to take risk, investors should also carefully consider their willingness to take risk. These two factors are not always in alignment. For instance, an investor with a long-term goal may have the ability to take on additional portfolio risk, but if the thought of losing money keeps them awake at night they might not have the willingness to take much risk.

Investors should attempt to align their ability and their willingness to take risk. However, in situations where ability and willingness provide conflicting signals, investors should defer to that which is more conservative. In other words, if an investor has the ability to take risk but not the willingness, they should take less risk. On the other hand, even if an investor is aggressive by nature, if their objectives are short-term in nature, they should probably invest conservatively. (Learn more about this important topic in our article Risk Tolerance Only Tells Half The Story.)

Safety, Income and Growth
Safety, income and growth are the three main objectives within an investment portfolio. The degree of emphasis placed on each of these goals will differ depending on an individual investor’s return objectives and risk tolerance. Cautious investors will emphasize safety, while aggressive investors will

emphasize growth. Likewise, investors who require cash flows from the portfolio will emphasize income while with no need for income will emphasize growth.

While the degree of emphasis on these three objectives will vary, under most circumstances investors should not exclude one. For instance, even in the most cautious of investment programs, attention should be paid to growing the portfolio enough to keep pace with the rate of inflation. Likewise, even aggressive investors with long-term time horizons should pay strict attention to risk management, as large losses in a portfolio can be difficult to overcome even over long time periods. Finally, regardless of whether an individual intends to withdraw cash from the account, income is responsible for a large portion of total return in investment portfolios over time; therefore, investors that ignore this crucial component do so to their own detriment.

Conclusion
In general, younger investors will have a reduced emphasis on safety and income while older investors will focus more closely on these goals. Likewise, individuals with short-term time horizons will primarily focus on safety while those with longer-term objectives will be interested in growing the portfolio. Importantly though, investors should seek to balance both safety and growth within the portfolio management process; the precise emphasis will vary depending on unique circumstances, but neither should be ignored. Finally, regardless of whether withdrawals are intended from the portfolio, income can help to produce superior total return in a portfolio over time.

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The first thing that comes to most people's minds when they think of investing is the stock market. After all, stocks are exciting. The swings in the market are scrutinized in the newspapers and even covered by local evening newscasts. Stories of investors gaining great wealth in the stock market are common.

Bonds, on the other hand, don't have the same sex appeal. The lingo seems arcane and confusing to the average person. Plus, bonds are much more boring – especially during raging bull markets, when they seem to offer an insignificant return compared to stocks.

However, all it takes is a bear market to remind investors of the virtues of a bond's safety and stability. In fact, for many investors it makes sense to have at least part of their portfolio invested in bonds.
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Just as people need money, so do companies and governments. A company needs funds to expand into new markets, while governments need money for everything from infrastructure to social programs. The problem large organizations run into is that they typically need far more money than the average bank can provide. The solution is to raise money by issuing bonds (or other debt instruments) to a public market. Thousands of investors then each lend a portion of the capital needed. Really, a bond is nothing more than a loan for which you are the lender. The organization that sells a bond is known as

the issuer. You can think of a bond as an IOU given by a borrower (the issuer) to a lender (the investor).

Of course, nobody would loan his or her hard-earned money for nothing. The issuer of a bond must pay the investor something extra for the privilege of using his or her money. This "extra" comes in the form of interest payments, which are made at a predetermined rate and schedule. The interest rate is often referred to as the coupon. The date on which the issuer has to repay the amount borrowed (known as face value) is called the maturity date. Bonds are known as fixed-income securities because you know the exact amount of cash you'll get back if you hold the security until maturity.

For example, say you buy a bond with a face value of $1,000, a coupon of 8%, and a maturity of 10 years. This means you'll receive a total of $80 ($1,000*8%) of interest per year for the next 10 years. Actually, because most bonds pay interest semi-annually, you'll receive two payments of $40 a year for 10 years. When the bond matures after a decade, you'll get your $1,000 back.

Debt Versus Equity

Bonds are debt, whereas stocks are equity. This is the important distinction between the two securities. By purchasing equity (stock) an investor becomes an owner in a corporation. Ownership comes with voting rights and the right to share in any future profits. By purchasing debt (bonds) an investor becomes a creditor to the corporation (or government). The primary advantage of being a creditor is that you have a higher claim on assets than shareholders do: that is, in the case of bankruptcy, a bondholder will get paid before a shareholder. However, the bondholder does not share in the profits if a company does well – he or she is entitled only to the principal plus interest.

To sum up, there is generally less risk in owning bonds than in owning stocks, but this comes at the cost of a lower return.

Why Bother With Bonds?
It's an investing axiom that stocks return more than bonds. In the past, this has generally been true for time periods of at least 10 years or more. However, this doesn't mean you shouldn't invest in bonds. Bonds are appropriate any time you cannot tolerate the short-term volatility of the stock market. Take two situations where this may be true:

1) Retirement – The easiest example to think of is an individual living off a fixed income. A retiree simply cannot afford to lose his/her principal as income for it is required to pay the bills.

2) Shorter time horizons – Say a young executive is planning to go back for an MBA in three years. It's true that the stock market provides the opportunity for higher growth, which is why his/her retirement fund is mostly in stocks, but the executive cannot afford to take the chance of losing the money going towards his/her education. Because money is needed for a specific purpose in the relatively near future, fixed-income securities are likely the best investment.

These two examples are clear cut, and they don't represent all investors. Most personal financial advisors advocate maintaining a diversified portfolio and changing the weightings of asset classes throughout your life. For example, in your 20s and 30s a majority of wealth should be in equities. In your 40s and 50s the percentages shift out of stocks into bonds until retirement, when a majority of your investments should be in the form of fixed income.

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Bonds have a number of characteristics of which you need to be aware. All of these factors play a role in determining the value of a bond and the extent to which it fits in your portfolio.

Face Value/Par Value
The face value (also known as the par value or principal) is the amount of money a holder will get back once a bond matures. A newly issued bond usually sells at the par value. Corporate bonds normally have a par value of $1,000, but this amount can be much greater for government bonds.

What confuses many people is that the par value is not the price of the bond. A bond's price fluctuates throughout its life in response to a number of variables (more on this later). When a bond trades at a price above the face value, it is said to be selling at a premium. When a bond sells below face value, it is said to be selling at a discount.

Coupon (The Interest Rate)
The coupon is the amount the bondholder will receive as interest payments. It's called a "coupon" because sometimes there are physical coupons on the bond that you tear off and redeem for interest. However, this was more common in the past. Nowadays, records are more likely to be kept electronically.

As previously mentioned, most bonds pay interest every six months, but it's possible for them to pay monthly, quarterly or annually. The coupon is

expressed as a percentage of the par value. If a bond pays a coupon of 10% and its par value is $1,000, then it'll pay $100 of interest a year. A rate that stays as a fixed percentage of the par value like this is a fixed-rate bond. Another possibility is an adjustable interest payment, known as a floating-rate bond. In this case the interest rate is tied to market rates through an index, such as the rate on Treasury bills.

You might think investors will pay more for a high coupon than for a low coupon. All things being equal, a lower coupon means that the price of the bond will fluctuate more.

Maturity

The maturity date is the date in the future on which the investor's principal will be repaid. Maturities can range from as little as one day to as long as 30 years (though terms of 100 years have been issued).

A bond that matures in one year is much more predictable and thus less risky than a bond that matures in 20 years. Therefore, in general, the longer the time to maturity, the higher the interest rate. Also, all things being equal, a longer term bond will fluctuate more than a shorter term bond.

Issuer

The issuer of a bond is a crucial factor to consider, as the issuer's stability is your main assurance of getting paid back. For example, the U.S. government is far more secure than any corporation. Its default risk (the chance of the debt not being paid back) is extremely small – so small that U.S. government securities are known as risk-free assets. The reason behind this is that a government will always be able to bring in future revenue through taxation. A

company, on the other hand, must continue to make profits, which is far from guaranteed. This added risk means corporate bonds must offer a higher yield in order to entice investors – this is the risk/return tradeoff in action.

The bond rating system helps investors determine a company's credit risk. Think of a bond rating as the report card for a company's credit rating. Blue-chip firms, which are safer investments, have a high rating, while risky companies have a low rating. The chart below illustrates the different bond rating scales from the major rating agencies in the U.S.: Moody's, Standard and Poor's and Fitch Ratings.

Bond Rating		Grade	Risk
Moody\'s	**S&P/ Fitch**		
Aaa	AAA	Investment	Highest Quality
Aa	AA	Investment	High Quality
A	A	Investment	Strong
Baa	BBB	Investment	Medium Grade
Ba, B	BB, B	Junk	Speculative
Caa/Ca/C	CCC/CC/C	Junk	Highly Speculative
C	D	Junk	In Default

Notice that if the company falls below a certain credit rating, its grade changes from investment quality to junk status. Junk bonds are aptly named: they are the debt of companies in some sort of financial difficulty. Because they are so risky, they have to offer much higher yields than any other debt. This brings up an important point: not all bonds are inherently safer than stocks. Certain types of bonds can be just as risky, if not riskier, than stocks.

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BOND BASICS: YIELD, PRICE AND OTHER CONFUSION

By Investopedia Staff

Understanding the price fluctuation of bonds is probably the most confusing part of this lesson. In fact, many new investors are surprised to learn that a bond's price changes on a daily basis, just like that of any other publicly-traded security. Up to this point, we've talked about bonds as if every investor holds them to maturity. It's true that if you do this you're guaranteed to get your principal back; however, a bond does not have to be held to maturity. At any time, a bond can be sold in the open market, where the price can fluctuate – sometimes dramatically. We'll get to how price changes in a bit. First, we need to introduce the concept of yield.

Measuring Return With Yield
Yield is a figure that shows the return you get on a bond. The simplest version of yield is calculated using the following formula: yield = coupon amount/price. When you buy a bond at par, yield is equal to the interest rate. When the price changes, so does the yield.

Let's demonstrate this with an example. If you buy a bond with a 10% coupon at its $1,000 par value, the yield is 10% ($100/$1,000). Pretty simple stuff. But if the price goes down to $800, then the yield goes up to 12.5%. This happens because you are getting the same guaranteed $100 on an asset that is worth

$800 ($100/$800). Conversely, if the bond goes up in price to $1,200, the yield shrinks to 8.33% ($100/$1,200).

Yield To Maturity

Of course, these matters are always more complicated in real life. When bond investors refer to yield, they are usually referring to yield to maturity (YTM). YTM is a more advanced yield calculation that shows the total return you will receive if you hold the bond to maturity. It equals all the interest payments you will receive (and assumes that you will reinvest the interest payment at the same rate as the current yield on the bond) plus any gain (if you purchased at a discount) or loss (if you purchased at a premium).

Knowing how to calculate YTM isn't important right now. In fact, the calculation is rather sophisticated and beyond the scope of this tutorial. The key point here is that YTM is more accurate and enables you to compare bonds with different maturities and coupons.

Putting It All Together: The Link Between Price And Yield

The relationship of yield to price can be summarized as follows: when price goes up, yield goes down and vice versa. Technically, you'd say the bond's price and its yield are inversely related.

Here's a commonly asked question: How can high yields and high prices both be good when they can't happen at the same time? The answer depends on your point of view. If you are a bond buyer, you want high yields. A buyer wants to pay $800 for the $1,000 bond, which gives the bond a high yield of 12.5%. On the other hand, if you already own a bond, you've locked in your interest rate, so you hope the price of the bond goes up. This way you can cash out by selling your bond in the future.

Price In The Market

So far we've discussed the factors of face value, coupon, maturity, issuers and yield. All of these characteristics of a bond play a role in its price. However, the factor that influences a bond more than any other is the level of prevailing interest rates in the economy. When interest rates rise, the prices of bonds in the market fall, thereby raising the yield of the older bonds and bringing them into line with newer bonds being issued with higher coupons. When interest rates fall, the prices of bonds in the market rise, thereby lowering the yield of the older bonds and bringing them into line with newer bonds being issued with lower coupons.

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BOND BASICS: DIFFERENT TYPES OF BONDS

By Investopedia Staff

Government Bonds

In general, fixed-income securities are classified according to the length of time before maturity. These are the three main categories:

Bills – debt securities maturing in less than one year.
Notes – debt securities maturing in one to 10 years.
Bonds – debt securities maturing in more than 10 years.

Marketable securities from the U.S. government – known collectively as

Treasuries – follow this guideline and are issued as Treasury bonds, Treasury notes and Treasury bills (T-bills). Technically speaking, T-bills aren't bonds because of their short maturity. (You can read more about T-bills in our *Money Market* tutorial.) All debt issued by Uncle Sam is regarded as extremely safe, as is the debt of any stable country. The debt of many developing countries, however, does carry substantial risk. Like companies, countries can default on payments.

Municipal Bonds

Municipal bonds, known as "munis", are the next progression in terms of risk. Cities don't go bankrupt that often, but it can happen. The major advantage to munis is that the returns are free from federal tax. Furthermore, local governments will sometimes make their debt non-taxable for residents, thus making some municipal bonds completely tax free. Because of these tax savings, the yield on a muni is usually lower than that of a taxable bond. Depending on your personal situation, a muni can be a great investment on an after-tax basis.

corporate Bonds

A company can issue bonds just as it can issue stock. Large corporations have a lot of flexibility as to how much debt they can issue: the limit is whatever the market will bear. Generally, a short-term corporate bond is less than five years; intermediate is five to 12 years, and long term is over 12 years.

Corporate bonds are characterized by higher yields because there is a higher risk of a company defaulting than a government. The upside is that they can also be the most rewarding fixed-income investments because of the risk the investor must take on. The company's credit quality is very important: the higher the quality, the lower the interest rate the investor receives.

Other variations on corporate bonds include convertible bonds, which the holder can convert into stock, and callable bonds, which allow the company to redeem an issue prior to maturity.

Zero-Coupon Bonds

This is a type of bond that makes no coupon payments but instead is issued at a considerable discount to par value. For example, let's say a zero-coupon bond with a $1,000 par value and 10 years to maturity is trading at $600; you'd be paying $600 today for a bond that will be worth $1,000 in 10 years.
Read more: Bond Basics: Different Types Of Bonds | Investopediahttp://www.investopedia.com/university/bonds/bonds4.asp#ixzz3qvBmA4Ri
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BOND BASICS: HOW TO READ A BOND TABLE

By Investopedia Staff

	Coupon	Mat. date	Bid $	Yld%
Corporate				
AGT Lt	8.800	Sep 22/25	100.46	8.75
Air Ca	6.750	Feb 02/04	94.00	9.09
AssCap	5.400	Sep 04/01	100.01	5.38
Avco	5.750	Jun 02/03	100.25	5.63
Bell	6.250	Dec 01/03	101.59	5.63
Bell	6.500	May 09/05	102.01	5.95
BMO	7.000	Jan 28/10	106.55	6.04
BNS	5.400	Apr 01/03	100.31	5.24
BNS	6.250	Jul 16/07	101.56	5.95
CardTr	5.510	Jun 21/03	100.52	5.27
Cdn Pa	5.850	Mar 30/09	93.93	6.83
Clearn	0.000	May 15/08	88.50	8.61
CnCrTr	5.625	Mar 24/05	99.78	5.68
Coke	5.650	Mar 17/04	99.59	5.80
Column 1	Column 2	Column 3	Column 4	Column 5

Column 1: Issuer – This is the company, state (or province) or country that is issuing the bond.

Column 2: Coupon – The coupon refers to the fixed interest rate that the issuer pays to the lender.

Column 3: Maturity Date – This is the date on which the borrower will repay the investors their principal. Typically, only the last two digits of the year are quoted: 25 means 2025, 04 is 2004, etc.

Column 4: Bid Price – This is the price someone is willing to pay for the bond. It is quoted in relation to 100, no matter what the par value is. Think of the bid price as a percentage: a bond with a bid of 93 is trading at 93% of its par value.

Column 5: Yield – The yield indicates annual return until the bond matures. Usually, this is the yield to maturity, not current yield. If the bond is callable it will have a "c–" where the "–" is the year the bond can be called. For example, c10 means the bond can be called as early as 2010.
Read more: Bond Basics: How To Read A Bond Table | Investopediahttp://www.investopedia.com/university/bonds/bonds5.asp#ixzz3qvCGCLzN
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FINANCE AND RETIREMENT

Few people want to have less tomorrow than they have today

This section covers general financial theory. I've placed it first as a litmus test. If you disagree with the general direction we're taking then most of the financial advice in this book won't help you. If it makes sense to you, then carry on. Remember at all times that I'm just a few chapters ahead of you, writing as I learn. This isn't my life's work–I've been a lot of things but NONE of them related to finance and/or investment.

For some, the financial and investment chapters will be the most useful part of the book. For some, it's the least important. If you don't have enough money to retire, but you're being forced to by job requirements, health issues, or you simply can't bear to work anymore, then those sections won't help you much. We'll cover some ways to struggle through with an under-funded retirement in the chapter called **Getting By.**

This section is about saving an adequate amount for retirement, and then managing that savings to yield the lifestyle you want or need. Most of the wisdom in this book comes from the writings of other people, and a great deal comes from the Bogleheads website: http://www.Bogleheads.org, a tremendous resource that I am currently banned from. I know that sounds odd, but it was my own fault. My first post was about this book, inviting members to

review what I was doing. I posted links to the development environment of this book as a PressBooks website. Of course, it looked like spam, or an attempt to lure participants in the forum off to my own site for nefarious purposes, so I'm banned from posting. Sorry about that, but the site and the retirement book based on the site remains the source of most of the investment knowledge in the book. So thanks for that.

I'd post my thanks on the site, but I'm banned, so I can't.

In general, people don't want to go backwards. People don't want to have less tomorrow than they do today. Retirement doesn't have to mean squashing your life down to a subsistence existence. But you can squash down your expense model and have a happy life. I started this book as some blog entries on a website I maintain: http://www.ponostyle.com and I started a conversation about the blog entries on a forum about Stand Up Paddle boarding called the Standup Zone (www.standupzone.com). One of the other members posted this in response to my comments:

"To be truly challenging, a voyage, like a life, must rest on a firm foundation of financial unrest. Otherwise, you are doomed to a routine traverse, the kind known to yachtsmen who play with their boats at sea… cruising, it is called. Voyaging belongs to seamen, and to the wanderers of the world who cannot, or will not, fit in. If you are contemplating a voyage and you have the means, abandon the venture until your fortunes change. Only then will you know what the sea is all about. "I've always wanted to sail to the south seas, but I can't afford it." What these men can't afford is not to go. They are enmeshed in the cancerous discipline of security. And in the worship of security, we fling our lives beneath the wheels of routine – and before we know it our lives are gone. What does a man need – really need? A few pounds of food each day, heat

and shelter, six feet to lie down in – and some form of working activity that will yield a sense of accomplishment. That's all – in the material sense, and we know it. But we are brainwashed by our economic system until we end up in a tomb beneath a pyramid of time payments, mortgages, preposterous gadgetry, playthings that divert our attention for the sheer idiocy of the charade. The years thunder by, the dreams of youth grow dim where they lie caked in dust on the shelves of patience. Before we know it, the tomb is sealed. Where, then, lies the answer? In choice. Which shall it be: bankruptcy of purse or bankruptcy of life?"

~Sterling Hayden

I value that advice highly.

Taking Responsibility

Critical Stuff: Picking the right kind of financial advice is critical to your financial health. The person you like best is probably the worst choice. The one who promises the most is the biggest crook.

In This Chapter: Fee-based means "I screw you and you pay for it". Taxes and advisors. Math exposes bullshit.

If you need to live off 4 percent, how can you pay your advisers 2.5 percent?

When I was running the company my wife and I founded we sold 35 percent of the company to a private capital company for a very substantial amount of money. As is typical with these kinds of investments the bulk of the money came directly to Diane and I–as the founders and primary shareholders. Since I could easily be the poster child for Attention Deficit Disorder I didn't want to focus on managing this financial windfall, and neither did Diane. So we met with a few "wealth managers", picked two, and gave them the bulk of the money to manage. My direction was simple and arrogant: "I know how to make money, and I'm going to go on doing that. What I want you folks to do is not lose this." I cringe at my stupidity today, but I tend to learn more through mistakes than success.

So here's what I've learned from this mistake:

- Many financial advisors are too expensive, give bad advice, have serious conflicts of interest, and don't do the work you need them to do anyway. You need to do a lot of due diligence to pick one, and you need to educate yourself on the realities of the investment world before you turn your hard-earned savings over to anyone.
- The common notion about the financial benefits of sharp fund managers and financial experts delivering superior results has been proven time and again to be untrue in the long run. You need to understand what a financial manager can and cannot do for you.

The Big Lie

Lets get something clear right away. No financial manager is going to be able to outperform the market for you. No mutual fund manager is really "hot". Yes, they can have a good year or two, but then they won't. There is a basic and very important principle in economics and statistics called "Regression to the Mean" that rules performance with an iron hand. In any undertaking that involves some element of chance, performance over time will move to the average. Nothing mystical about it, it's just math. But it's the reason the second album from your favorite rock group probably wasn't as good as the first, and your dad is taller than you (or not). It's why a high-flying trend line for anything collapses to the average in a surprisingly short period of time. The companies that create mutual funds know all about this. But they lie to you by inferring that some "stellar" manager is the reason one particular fund is so hot, and infer that the "hotness" will continue because of the manager's skill. Yes, they say "prior history is not an indication of future performance"–but who

believes that? You should, because it's true. In fact prior high performance is an excellent indication that the party is over, and you've arrived after the shrimp is gone.

The really sneaky part of this party is that you weren't invited while the shrimp were still plentiful. Companies that create mutual funds "incubate" a whole flock of them privately, and let them run for a while. Then they shoot the losers and market the heck out of the winners (and charge a big "expense ratio" for the performance). But isn't that what you want them to do? Don't you want to buy only winners?

Two factors mean this is a lousy deal: Survivor Bias and Regression to the Mean. Both mean that the performance you're seeing isn't the performance you'll be buying. The high flyers will quickly drop to market-level gains or lower. You bought into a streak that was mostly luck, and it's over.

We've gone deep enough into this. You can accept that what I'm saying is true, or start prowling the web looking at the brazillion articles that discuss this. We'll cover this in a little more depth later in the book.

Who Do You Choose?

If you elect to use professional advice you certainly need to understand the difference between fee-only and fee-based. Fee-only means what it says. Fee-based is sales speak for "I charge you a fee, and I get paid commissions". Huge conflict of interest, both from the basis of the fee (assets under management) and from commissions–they're paid to sell you stuff. And when you are sitting in a financial advisor's office you *will* be sold to–that's a poor time to be investigating their fee structure.

In theory, you can select a fiduciary advisor who has specific responsibilities to put your interests first, but even then there's lot of room for concern–they must disclose any conflicts of interest. Disclosure represents wiggle room. Your failure to act on full disclosure is not the advisors fault. Do you really read all that disclosure stuff? Even if you do and you find some conflict that worries you the advisor will waggle his hand and say "oh that's just a required disclosure, I never let commissions dictate what I recommend for my clients." Yeah, sure.

Yeah, sure.

Equally importantly is that there's no guarantee that they will pay the kind of attention to your investments that will keep you out of trouble in the future. Theoretically, the reason you are engaging an advisor is that they can outperform you, or at least have better information than you. In truth, your selection of an advisor will probably be more influenced by how good a sales job they do on you, or how much your friends and family trust the person than any clear understanding of their fee structure, real performance, philosophy, and integrity.

Some financial writers claim that fee-only advisors can help you and have no conflict of interest–they are contractually barred from having any conflict or collecting any commission. That may indeed be true, but having an advisor collect a fixed fee from you is no guarantee that they aren't simply wrong or incompetent. Eliminating the conflict of interest is certainly important, but you also need a competent adviser. And if you choose to look at fee-only advisors, you should understand their compensation and how it still might create a conflict of interest that will influence their recommendations. For example, a fixed fee represents less conflict than one based on a percentage of assets

under management. An advisor with only your interests in mind might encourage you to invest in real estate, or some investment outside their management if it's in your best interest. One whose fee is based on assets under management will be less likely to do that. That doesn't mean they wouldn't give you optimal advice, but the conflict is present and could influence their actions.

Most traditional financial advisors are fee-based, which means they charge you a fee which is typically between 1 and 1.5% of the assets under their management, Some may charge you an additional fixed fee to provide you with general financial advice and services. But then they may also take some commissions from the kind of investments they select for you–multiple and clear conflicts of interest. The fees they are collecting for pushing you into investment products can be substantial. There is a disturbing article on one such company called Matson Money here. It's particularly disturbing to me since one of my financial advisers steered a large portion of the my funds under his management into these funds. He was undoubtedly doing very well by doing so, as well as collecting his already excessive fees.

Most financial writers soft-pedal their condemnation of these practices. The perpetrators aren't doing anything strictly illegal. Their conflicts of interest and hidden compensation is disclosed–somewhere. But the simple truth is that clients pay financial advisors to act in the client's interest first and foremost, and they give them their trust. They don't expect to be conned into accepting some overpriced set of funds that will eat up the money they are supposed to be growing for retirement. It may not be fraud at the level of some Madoff-style Ponzi scheme. But it certainly doesn't represent anything like fiduciary responsibility and it's harmful to their clients. Not all fee-based advisors treat their clients this way, there are many that put their clients needs first. But the

conflict of interest is always present, and ultimately influences the thinking of most advisers.

Advice Costs Too Much

Even if they are not screwing you by double dipping and giving advice with a conflict of interest, an advisor may cost too much for what they do. Paying the typical fee of one to one and a half percent of investments under management to an advisor might seem trivial, but as we'll discuss in detail later, if you don't want your nest egg to evaporate before you die, you should live on about 3-4 percent of your investments, and less than that if you can manage it. Giving half of that to an investment advisor suddenly seems pretty expensive. But the reality is that most advisors will be steering you into investments that benefit them at least as much as you, especially if they are receiving commissions that come from the expense ratio of the funds they recommend. Take a look at those expense ratios and you might find that your advisors are costing you between 2.5 and 3 percent. That's what you are supposed to live on when you are retired. That's all of it. If you are also taking, say three percent from your nest egg, then you're pulling out five to six percent. That moves you well into the territory of people who will probably run out of money before they kaack. I hear McDonald's may be hiring seniors.

From a recent LA Times article (full article here) about a proposed rule to force financial advisors to act as a fiduciary:

NEW YORK — A newly proposed rule to ban retirement planners from creating conflicts of interest with their customers might appear to put an end the years-long policy fight over the issue. Don't bet your retirement on it. The battle is just beginning, proponents of the rule said. The regulation requiring advisors to put clients' interests first is designed to halt planners

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from, among other things, steering unknowing customers into high-cost, poorly performing investments that pay planners more but cost retirees dearly. The formal language published late Tuesday by the Labor Department triggered a 75-day comment period and eventual public hearing that both promise to turn the issue into one of the hotly contested regulatory fights since the Great Recession.

"This is going to be the biggest battle since Dodd-Frank, hands down," said Dennis Kelleher, chief executive of financial reform advocacy group Better Markets Inc., referring to the sweeping 2010 financial reform law.

Kelleher said the industry can be expected to redouble its efforts to kill or mute the rule with $17 billion in annual revenue at stake. That's the amount the Obama administration said is unfairly diverted to Wall Street and other financial intermediaries in fees because of conflicted advice given to customers. The administration said planners are often compensated through backdoor payments from mutual fund companies or other institutions without the knowledge of their customers. So far, major trade groups, which have led the fight against the proposed rule, are offering a restrained response.

17 Billion in revenue from giving advice tainted by conflicts of interest!?! Holy crap!!! Any question that you should take a good hard look at your advisor?

And in fact, the financial industry will probably be successful in killing the effort to reign in investment advisors, claiming that the new rules will hurt investors. Remarkable nonsense. If you had any doubt that the *Wall Street Journal* is firmly in the hands of the investment industry then take a look at their reporting on this issue. Lying liars, pure and simple. They know better, and they're lying. Flat out, no questions about it, lying.

The good news is that following a really well-researched path for investment with nearly no fees and very little expense ratio is fairly easy. The bad news is that you have to do some of the work yourself, or at least you should. There

are simplified alternative financial advisors like Vanguard's in-house financial advisers that will help you out for .2 percent per year. But you can also do it yourself and probably use Vanguards free services to do the heavy lifting. You can also use robo investment services, as we will discuss later or you could use specialized fee-only advisors that provide more limited services and minimal handholding. But if you do everything yourself, in the lowest cost way, you could wind up with a total fee and expense percentage of about .09%. If you had one million dollars with a typical financial advisor, and they were collecting fees and steering you into actively traded funds that they collected commissions for, your total expense for funds under management might be 3 percent, or $30,000 per year. If you managed your own investments using something more like a Boglehead (explanation later) approach, your total expense would be $900 or less (not including taxes).

Here's the most important issue of all: If your investment advisor was so brilliant that they delivered double the performance of the world market *you would just about break even on expense.* Except that they would undoubtedly be trading a lot, and generating a lot of transaction fees and capital gains. If your advisor isn't paying close attention to your tax situation with every trade, then the short-term capital gains tax can eat up a lot of the benefits. And the simple truth is that Regression to the Mean ensures that no one outperforms the market for long. In fact, they very rarely do for more than two or three years.

So in the good years, they won't do much for you after fees and taxes, and in the not-so-good years they'll still take their cut, and make everything that much worse.

If you are willing to do your share of the work and apply a disciplined approach to your investments, then you can save a lot of money that will enable your investments to grow much faster, with less drag. That's a *VERY* big if though. If you are just an undisciplined dabbler, and you yank your money out every time the market goes low, and buy back in when it goes high, then you will screw yourself right into the ground. In that case, you need handholding. Whether you can do that with a low fee advisor or you have to pay through the nose for full service is largely up to you.

Do They Really Do The Work?

In my experience, the more senior the financial advisor is (you want to be working with the main dude, right?) the less attention they will actually pay to your account. If you observe their actions carefully, you can usually tell that when you sit down together in that fancy conference room, and your guy opens your folder, that's the first he's seen of it since the last meeting. For the most part, people you have never met are working on your stuff, and they're doing one-size-fits-all work on your account if they do anything at all. If they aren't doing much–that's the good news. Generally, if they leave your account alone they won't be actively damaging your savings. But what are you paying all that money for?

If they're moving money around they will likely generate some taxable event. You might expect them to pay attention to your overall tax situation, and give you the best strategy for moving money from one entity to another, but often it's a general decision, and your individual needs are considered only peripherally. I'm sure I'll get comments that say I'm completely off base, but a financial advisor with fifty clients is small spuds–how much of their attention is going to be applied to the long and short term tax consequence of their

actions? They have your permission to trade without contacting you. They will do so. It won't always be good for you.

In the next few chapters, I'll talk about alternatives. But in the meantime, Google the word Bogleheads and do a bit of your own research.

Here's an excerpt of a comment from SupCheat–one of the beta readers:

"Many pros are insurance salespeople, or were, and became certified financial planners after fact. They will stuff you to the gills with whole life insurance and annuities that produce very high commissions for THEM.
I got to know one guy pretty well but not as his client. He actually did a lot of good, because he was in tax planning and was a CPA, and the people he served were generally irresponsible spendthrifts. Setting up trusts, managing inherited estates, doling out allowances and doing tax planning for those types actually served them well, even if it was a high commission service, because the people were shallow, live for today morons, or families fighting over inheritances. An annuity is actually a good thing for a spendthrift, even if sold at high commission, because it forces them to budget.
However, in his own life, he was always on knife's edge. He kept taking out second mortgages to live, tapped retirement plans with paid penalties, and generally had not much in the way of personal savings and spent more than he had. He just wanted to get a certain number of million dollar plus portfolios to manage at one percent a year to guarantee his income stream, which once acquired, would allow him to go on indefinitely with income even if not retired.
Professions based purely on knowledge can go on forever without necessarily retiring, just dialing back a bit, and I think that was his plan.
A lot of it comes down to the "myth of expertise" that many people wish to rely on and trust. When it comes to finance, there is nobody who can predict the future and basically NOBODY is an expert. If you don't realize that commissions, expenses and services will eat you alive over time, then you are basically doomed to share your nest egg and not use it for yourself."

Will It Last

Critical Stuff: Spend no more than 3% of your savings per year.

In This Chapter: Calculating Doom. It's not what you saved, it's what you spend. It's never too early to simplify.

The ultimate retirement question: Will my savings last through my retirement? There are a host of ways to arrive at some kind of answer. Let me preface this with the simplest answer: Yes. Your savings will last if you always adjust your savings to the current environment–but that's a nonsense answer. In theory you can just tighten your belt when things get tough. Not many people continue blithely spending until their savings account is depleted. But most people have some minimum amount they need to spend–to pay property taxes, income taxes, medicine and health care expenses, etc.. So yes, you can easily get to the point where you can't meet your minimum requirements and have to take drastic action.

There are dozens of tools on the internet that can help you make this calculation. The value of the tools generally varies with their sophistication. To do a good job of making this kind of calculation you input all your sources of income, the nature of your portfolio, your age, your spouses age, and the amount of money you spend each month. You probably also set a spend rate expected after the spouse with the shortest expected lifespan dies. Then the tool calculates your likely portfolio and other investment performance,

contrasts it against your spend rate, adjusts for inflation, and tells you how much money will remain when you die.

There are four flavors of tool based on the nature of the calculation, Since the way the market behaves is a critical piece of the calculation, and there are other factors that are hard to estimate, the calculators fudge the results on one way or another.

Deterministic: This means the rates of return for stocks and bonds are fixed–usually by the user. This kind of calculation generally just tells you how much money you will have if all the input variables work as intended. In other words, if you are correct in your assumptions about portfolio earnings and inflation rate. It's basically a model based on compound interest vs. an inflation-adjusted draw rate.

Historic Returns: The calculator uses historical stock and bond returns from some representative period. It's a slightly more sophisticated approach than just guessing portfolio return. Of course as any prospectus says–past performance is not an indication of future performance. But still, it's useful.

Historical Stress: The calculator selects a historical blend to build worst case scenarios. Another step up in complexity and sophistication. In some implementations, this model runs with a number of historical versions, yielding a prediction for portfolio performance and inflation based on several historical timespans.

Monte Carlo: The calculator builds a model for how a portfolio might perform and then runs through thousands of possible scenarios, recording the result for each scenario. This is probably the most useful model for giving a range

of likely performance for diversified portfolios. It clarifies how decisions on asset allocation can affect risk. The results are generally supplied for several different portfolio designs, with the primary calculation output being a percentage of model runs that yielded the desired result. Monte Carlo tests are a standard statistical method for problems where there are a lot of possible input factors and a wide variation of ranges. In a practical Monte Carlo simulation, the outlier situations are not modeled. In other words, they don't tell you how your investments will do in the face of any flavor of Armageddon.

So why would you use these calculators? Well, for one thing, most of them will give you a probability for your savings lasting for some spending rate. You can get a good idea of a safe rate to spend. You can also see the difference that various portfolio allocations make. For example, an all-stock portfolio will likely show some higher risk levels for longer time periods, and an all-bond portfolio will not support a high spending rate. Playing around with the allocations, the spending rate, and the amount you have to invest will give you a good idea of what some parts of your plan should be.

There is a well-documented list of retirement calculators on the Bogleheads wiki site at : http://www.bogleheads.org/wiki/Retirement_calculators_and_spending This page seems to be maintained and updated fairly frequently though some of the calculators move around on the website referenced–you might have to search, but it doesn't make sense to reproduce it here.

Desired Spending vs. Desired Savings

You may not have a clear idea of how much money you'll have saved at retirement, or perhaps you need a little stimulation to spur your saving efforts.

You can stand the model on its head and come at the issue another way by figuring how much you *want* to spend in retirement.

This calculation requires estimates of your expected longevity, investment returns for various portfolio designs, and inflation. The calculation can use any of the mathematical models shown above, and the output is the amount of money you'll need to save for retirement. You simply choose a spend rate and then run the models with guesses at the amount of savings required to safely make that work. Your version of "safe" is personal, but I look for a Monte Carlo probability of better than 95 percent. In the process of playing with this, you'll also find the kind of portfolio most likely to work for the timeframe you're expecting.

Thumb Rules vs. Calculators

The same kind of numbers can be achieved through thumb rules, and these kinds of rules are often preferred by less sophisticated advisors. Oddly enough, the high expense financial advisors tend to be less sophisticated than low-cost advisors. The reason is simple–the skill set required to succeed in the high-cost model is salesmanship and the ability to instill trust, even when things look a bit bleak. A deep understanding of financial markets and mathematics is not part of the required skills. The financial acumen of high-cost advisors comes from the organization that backs them, such as a large bank or an investment "platform". That might sound just great to you, but understand that you are being sold a set of products based on the needs and interests of the financial advisor and the platform–your needs come a distant third.

The common thumb rule for spending in retirement is that you can spend 4 percent of your savings per year. It's not a terrible thumb rule, and it's even

better if you use 3 percent. This rule doesn't include any direct notion of how long you will live, what inflation will be like, or how the markets will do. It's a thumb rule, pure and simple, but it's based on modeling done in a variety of studies, and it's useful.

Another thumb rule regarding your portfolio is that you should own your age worth of bonds. In other words, if you are 65, your portfolio should be 65% bonds. It's simple, easy to remember, and it's based on likely recovery time for a downturn, which certainly makes sense. But in many ways, it's out of date. If you are 65 and your likely lifespan is 10 years, then it makes perfect sense. If it's more like 30 years then it makes a lot less sense and you might need to take more risk to meet your future spending requirements.

There are many more thumb rules, and many ways to come at the kind of spending rate, total savings, and portfolio allocation that will reduce the risk of depleting your savings. But before you accept any of them you should understand the concepts that underlie the thumb rule and be certain that it actually applies to you. You are more likely to have actionable guidance that is likely to deliver the results you desire if you run a few models and really see what the results are like.

Budgets, Spending, and the Simple Life

The easiest way to make certain you don't run out of money is not to spend it. It's not a total solution since inflation, market meltdowns, or a comet striking the earth can derail your plans. But simplifying your life before and during retirement makes a profound difference. There are numerous tools to create a budget, but any tool you use should differentiate between fixed expense and variable expense. Making the calculation is simple–add up all the fixed

expenses and subtract them from your monthly income from all sources. What's left is your variable expense, which you then choose to allocate. You might consider food to be a fixed expense, but it isn't. You can spend less or more than you currently do.

Zero Sum

Critical Stuff: The Secret Sauce of most financial advisors is ketchup and mayo–you can make your own

In This Chapter: You can't time the market. How not to gamble with retirement. Why mutual funds are such a lousy deal.

Picking individual stocks is just gambling. It's not a plan for the future. My Dad used to say "If you don't know who the fool in the game is… …it's you." The worst thing that can happen to you is that you get it right the first time and make a nice wad of money. There will be ups and downs in your stock-picking career after that, but you can be certain of one thing–sooner or later you'll lose badly. It's a rare person who can learn from a big loss that their initial luck was a fluke. Most people will keep betting, expecting the game to turn around. You know how that ends. I had a friend whose wife made some money in the stock market. He was impressed and encouraged her. Six months later their entire nest egg of about a million dollars and the kids college funds were gone. She had some losses, got panicked, and kept trying to "fix it" without him knowing. How would you like to explain that to your significant other?

Regression to the Mean–it's a bitch.

The biggest problem with investing in individual stocks is the uncompensated risk. Any number of events can cause a single company to lose a great deal of value–the talented CEO dies, a drug doesn't get FDA approval, etc.. Absent some kind of deep insider information, which would make it illegal to trade in

the stock, the information about a company will be reflected in the cost of the stock–the market is quite efficient and transparent. Unexpected results can certainly happen, but the most likely outcome is that the increase in value of the stock will track the industry sector it fits. There are fewer events likely to stagger the entire industry, so there's less risk in owning a little stock in every company in the sector. The underlying principle of diversification is getting the highest reward for the amount of risk you are willing to take. Individual stocks are not a plan, they're a gamble.

The Market Timing Ratchet

Not only is it foolhardy to try to find individual stocks that are going to make you a lot of money, but it's equally dangerous to try to buy the general market when it's low and sell when it's high. There is plenty of well-documented research and endless charts and graphs (Google all you like) that show the market as a whole grows in fits and starts, driven more by emotion and chaos than anything else. Even people who claim a great deal of market knowledge and understanding get the timing wrong. Generally that means they buy when stocks are going up and sell when they're going down. Buying when it's expensive and selling when it's cheap is the surest way to make your portfolio evaporate, which LOTS of people do.

On either a stock-picking or timing basis the market is a zero-sum game–someone has to lose for you to gain. Why would you think that the wind will blow your way? Perhaps you're counting on being the smartest, best informed, most decisive, fastest acting, most brilliant investor of the billion people investing. Or having someone who is willing to make you money who has all those attributes. Sorry, if they were that good, they'd be very careful to never tell anyone, and they'd be incredibly wealthy. That's not even Warren

Buffet–he doesn't claim to be that fictional character. And if you think it's you, or that you have access to that talent, then I know who the fool in the game is.

So how do you win in a zero-sum game? The simplest strategy I've seen that makes sense to me is to own a little bit of the whole market and benefit from economic growth. In other words, buy the whole market–stocks, bonds, and alternatives, and then pray that economic growth happens. In essence, a strategy called Modern Portfolio Theory which we'll cover a little later. There are other strategies that look interesting, I'm reading books and digging into websites. They look like a lot more work, but they might be a place to put part of your funds to hedge on the kind of disaster that 2009 delivered to investors. We'll get to that eventually. Maybe.

That brings us to index investments, which are simply funds of stocks, bonds, or whatever that represent the majority of the value of a given segment. We'll talk mostly about stock indexes since that's the most familiar concept, but there are indexes for everything these days.

The notion of an index in this case has been broadened to be more than just all the stocks represented by a popular index, like the Dow, or Standard & Poor. They can include all the major stocks in a segment or geographic market. Buying them feels a lot less like gambling, since you're betting on the performance of the entire sector represented. But since stocks represent a pretty substantial risk, and the market as a whole rises and falls somewhat in unison, you need other investments that aren't strongly coupled to market fluctuation–ideally they'd hedge the market, fluctuating in the opposite direction to compensate, or at least not correlating strongly to stocks.

There are indexes for stocks, bonds, and alternative investments. Since the

composition of the index fund is established by some algorithm or definition relative to the size or value of the companies comprising it, there's not much for the fund manager to do. In fact the trade volumes and percentages can be largely automated. That means they can be low cost. But here's a catch. There's not going to be some magical gain that's several times the gain of the general stock market. The recent gain of most index funds is somewhere around 4-5% per year.

The research that supports the theory that buying indexes is the prudent way to invest is substantial. Any broker or financial advisor that starts talking about academic theory of investment is talking about indexes and a concept called Modern Portfolio Theory (MPT), pure and simple. Unfortunately they leave out the crucial part of index investing–the costs need to be kept very low–and many will put you into managed funds that mirror indexes but are supposed to have some kind of secret sauce (like Matson Money, a company that just creates proprietary bundles of DFA funds (DFA is Dimensional Fund Advisors, a company that uses academic research to create index funds). They might cost as much as 2% per year on top of the 1.5% the advisor is charging you to manage your money. At 3-4% cost for a 4-5% gain plus taxes there isn't anything good that's going to happen to your money.

Here's a simple way to find out if your financial adviser is working in your best interest. If they rattle on about index funds and academic investment, but the expense ratio of your funds is more than .5 percent, then there's something amiss. If it's more than 1 percent, then either you're being sold out or your advisor is not very sharp. If it's more than two percent they're totally screwing you.

If you have been investing on your own, or most of your investments are

through IRA or 401K contributions, you still need to look at the kind of "expense ratios" that the funds you invest in are charging. If you accept the fact that fund managers can't beat the long term (or even mid term) performance of the market, then the kind of return an index fund provides is probably all you can expect. So what are you paying for? The average expense ratio of mutual funds is about .75 percent, but I suspect that number is fudged. The most popular mutual funds are the ones with strong historic performance, and from what I've seen they are a lot higher. You don't need an advisor to get hosed, you can do it all on your own.

I hesitate to provide this link, because the writing style in NewsMax triggers my bullshit detector, and the "groundbreaking new research" mentioned is hardly new, but it's right in the wheelhouse of what I'm writing about. The simple fact that the kind of compounded growth you count on to grow your retirement nest egg won't happen if you give all the gain away in fees. Here's the link, but keep your bullshit detector turned to eleven and don't buy anything from these guys.

IRAs And Such

Critical Stuff: IRAs are a great deal, with lots of catches.

In This Chapter: Taxes eat savings. High fees and mediocre management.

It would be easy to write a book about IRAs alone, though it would be stunningly boring and best used as a sleep aid for those nights when you simply couldn't resist that dish of coffee ice cream. I'm going to do a pretty lightweight job of covering this, mostly for the sake of completeness because there's so much good information online. I particularly recommend the www.Bogleheads.org site or the Bogleheads Guide to Retirement Planning which was the primary source of this information.

The universal advantage of all IRA flavors is that your funds grow tax-free, which leaves more money in the account to compound over the years. The big advantage of managing your IRA is that you can direct it to low fee funds and eliminate management fees. The biggest problem with IRAs is simply that they limit contributions to such a small amount of money. If that were not so I suspect taxable accounts would quickly disappear. But anyone planning for retirement needs to take IRAs into account. In taxable accounts you pay taxes on the money you earned to make the investment, then you pay taxes on dividends or interest as well as realized capital gains from mutual funds as a result of the fund manager churning the stocks held by the fund and/or distributing gains. Then you pay tax on the capital gain of the investment when you sell it. In a tax-deferred account, you pay no taxes on the money you

invested, no taxes on churn or reinvested dividends. All you pay is the taxes on the money you take from the fund once you retire, unless you try to take it out prematurely, in which case you also pay penalties.

That's the reason taxes are so important for retirement accounts, and the reason why IRAs are so valuable. All flavors provide shelter from at least several of those taxes. You must be careful to follow the rules when you move money in or out of an IRA or the taxes and penalties will chew up large portions of your savings. There are plenty of online resources (the bogleheads.org wiki does a fine job of converting IRS word hash into English) to determine if and how much you can contribute to an IRA, there's no point in reproducing those here since they change over time. But here's some fundamental points.

1. If your employer doesn't offer a retirement account of some form, you can contribute to an IRA and deduct your contribution from your income regardless of your income.

2. If your employer offers a retirement account you can contribute and deduct additionally to an IRA if you make less than a specific amount of money. Electing not to participate in your employer's plan doesn't change that rule.

3. You can contribute to an IRA account even if you don't meet those limits, but you can't deduct the contribution from your income.

4. You can't contribute to any IRA after you reach 70 1/2.

In 2015 the limit for contribution to all IRAs (Roth and otherwise) is $5500 or $6500 if you are over 50 (added catch-up) .

Do not consider your IRA to be just a neat way to save money tax-free. It's

for retirement. If you take money out of it before you are 59 1/2 you will owe taxes and a 10 percent penalty on whatever you withdraw. In some flavors of IRA there are exceptions to the withdrawal penalty such as disability, death, first time home buyer, etc., but you'll still pay the tax. Once you reach 70 1/2 you MUST take money out of the account–about 4 percent per year, rising to about 10 percent by the time you reach 90. If you don't take the money out as scheduled the IRS assesses a penalty of 50 percent of the amount you were supposed to withdraw. Yikes.

Roth IRAs

Contribution limits for Roth IRAs are pretty much the same as other IRAs though the income limits are higher. The money you put into a Roth IRA is after-tax funds, but that makes the contribution larger. The value to you of the $5000 contribution to a traditional IRA is substantially less since some of it is owed to the government as taxes. Additionally, there are no required distributions from a Roth IRA. The money grows tax-free as long as it is in the account, even if you pass it on through inheritance. So most financial advisors recommend that a Roth IRA be the last place you take money from. Additionally, the penalties and taxes from early distributions apply only to the earning of the Roth IRA, not the original contributions.

Self-Employed 401Ks

Self-employed people can take advantage of Solo 401Ks, Roth Solo 401k, SEP-IRAs and SIMPLE IRAs. again we won't cover these in detail but here's the basics:

Solo 401k is the self-employed flavor of 401k retirement plans. The big

advantage is that there is no income limit and the contribution limit is higher and is defined by the profit of your company. Here's the current link to the IRS description, but you can simply google solo *401k contribution limit.* In 2015 the limit to a participant's account, not counting catch-up contributions for those age 50 and over, cannot exceed $52,000 for 2014 and $53,000 for 2015. Withdrawal rules are the same as traditional IRAs except that you can borrow up to 50% or 50,000 whichever is less.

Roth Solo 401K is a hybrid, that allows contribution of after-tax funds with an employer contribution that works like a solo 401k. Confusing, but useful.

SEP-IRA is kind of an outdated concept. Used to be the best way for high income, self-employed individuals to shelter retirement savings from taxes, but Solo and Solo Roth generally work better now.

SIMPLE IRA was designed as a less expensive way for businesses with fewer than 100 employees to provide retirement benefits. In some cases they still make sense for small businesses with employees, but you'd need expert advice to decide that.

Rollover IRAs

If you have held a number of different jobs you might have multiple employer-based contribution plans of varied value. You probably pay little attention to them. It probably makes sense to roll them into your IRA. If you dig deep you'll probably find the money in these accounts is not being managed particularly well and the fees can be big. Some of the employer retirement plans permit borrowing from the account, and you'll lose that ability, but your fees will probably be lower and you can direct the money into a better strategy for you.

Whoever you have chosen as custodian of your IRA can handle the transfer for you with no tax consequence.

Rollovers are also a way to move money into IRAs that you previously could not qualify for. For example, you can roll non-deductible IRAs into Roth IRAs — an approach called a Backdoor IRA. The approach for doing this for high-income individuals is cumbersome and tricky, but there is lots of information about it online.

You can also close out all or part of your traditional IRAs and roll them into Roth IRAs to bypass the requirement to take distributions at age 70 1/2. You pay taxes on the money withdrawn from the traditional IRA, but once it's in a Roth you never pay taxes on it again, and it still grows tax-free. It's a worthwhile strategy if you think your current marginal income tax rate is lower than it will be in the future.

HSA Plans

I'm including this here mainly because the Bogleheads retirement book does, and I like their reasoning. HSAs are essentially IRAs with a particular purpose. If your health insurance is a high-deductible plan that meets IRS rules you can essentially self-insure for the difference. Contributions are deductible, and distributions are tax-free if you use them for healthcare. The fund can be invested in various ways, similar to traditional IRAs. In retirement, you can use the funds for health care, tax-free, and after age 65 you can use it for anything but you'll pay tax like a traditional IRA. Some financial planners recommend paying medical expenses out of pocket rather than decreasing the fund which grows tax-free, especially since anything you spend above 7.5 percent of your adjusted gross income for health care is deductible. The maximum

contribution to an HSA in 2015 is up to $3,350 for an individual and $6,650 for a family plus an extra $1000 for 55 and older – and these contributions are 100% tax deductible from gross income.

Transfers

A surprising number of IRAs wind up with high fees and mediocre management. Fortunately, IRAs are easy to transfer, you just contact the firm you want to use, do a little paperwork, and hey, presto. they take care of it for you. There's no tax consequence to liquidation over in-kind transfer as long as the transaction is done without a distribution. So if your current fund is in Zimbabwe municipal bonds they can be liquidated and moved to something rational.

Modern Portfolio Theory

Critical Stuff: Is asset allocation more important than performance? Probably.

In This Chapter: Modern Portfolio Theory and Avocado colored appliances. Buy and hold vs. Armageddon. Couldn't a robot do this?

Hiring someone to manage MPT investments is like paying someone to be your friend

Modern Portfolio Theory (MPT) is a lot like Political Correctness or Progressive Policy–a marketing label that sounds like a blanket endorsement. Oddly enough, Modern Portfolio Theory was developed in the 1950's, which makes it as modern as avocado-colored refrigerators. But in recent years it's become the accepted tool for financial managers and wealth advisors. Maybe it took that long for them to understand it. Or maybe it just fits the current market mood. Wikipedia has a very technical definition of the concept, which says in part:

Modern portfolio theory (**MPT**) is a theory of finance that attempts to maximize portfolio expected return for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected return, by carefully choosing the proportions of various assets. Although MPT is widely used in practice in the financial industry and several of its creators won a Nobel memorial prize for the theory,[1] in recent years the basic assumptions of MPT have been widely challenged by fields such as behavioral economics.

As a sidebar, the Nobel Memorial prize is NOT a Nobel Prize. Financial advisors selling MPT go on a bit about the Nobel prize aspect. I'm not discounting the theory when I say that there's a big difference in winning the Nobel Prize and a Nobel Memorial Prize, which is actually awarded by a Swiss bank. Here's a Wikipedia reference on the difference: http://en.wikipedia.org/wiki/Nobel_Memorial_Prize_in_Economic_Sciences.

Here's what I think–MPT is a reasonably safe way to invest. But paying someone to do it for you is like paying someone to be your friend. It's pretty easy to do it for yourself, but having a "wealth advisor" do it for you is a more than a bit nutty–believe me, I know, I've done that for the last six years. I've earned my financial moron status–or at least I paid well for it.

I say reasonably safe, because when everything goes to hell–which is the crisis mode mentioned in the full Wikipedia entry–it probably won't do you a lot of good. There are some trading strategies that make more sense, but they are much harder to implement, and if you get scared and pull out of them, your investments will probably get hosed. We'll talk about those later. The theory is really only useful for long term investment–basically retirement savings. And it works best if you keep your head down during financial swings, and apply a tool like Dollar Cost Averaging to smooth some of the volatility out. If you need money in the short term, don't put it into the stock market, and certainly don't put it into a buy-and-hold strategy like MPT.

Without getting into the math and a lot of examples, MPT basically says that no one really knows how to time the market, and mutual fund managers don't outperform the market over the long term, so you're better off owning a representative bits of the entire market and diversifying between stocks,

bonds, and alternative investments purchased in index funds, or funds that approximate an index.

The proportions of the asset classes chosen are intended to balance out risk in the timeframe of the investment. So, for example, if you are eighty, you'd own a lot more bonds than if you were thirty. But you probably wouldn't own actual bonds, you'd probably own bond funds which are broad samples of the total bond market, or samples of particular bond classes, like tax-free munis, or treasuries, or perhaps TIPS, which are inflation-adjusted treasury bonds. Because broad diversification, by owning a little of everything, is one linchpin of the strategy.

MPT is good because:

In theory, it eliminates the emotional trading that kills portfolios. People tend to buy when the market is going up–which intrinsically means they buy when stocks are expensive, and they sell when the market goes to shit–which means they sell when stocks are cheap. Do that a few times and your nest egg goes away. This isn't just something stupid people do, the Nobel Prize aspect involves long-term research that found that most investors do exactly that. Professional mutual fund managers might seem like they'd have more discipline, but they can't afford to. If they stay the course with an investment that's going south their fund results will suck, and they'll only earn six figures instead of seven. Actively managed funds typically turn over 85% of the stock in the fund every year. It's almost inevitable that the fund manager will be exposed to volatility risk. Add in the simple fact that frequent trading means a lower percentage of the money will be in the market, the trade volume runs up transaction fees, you pay capital gains even if you don't sell, and more of the

capital gains will be short term and there's a lot more working against the fund results than just the high cost the manager extracts.

By emphasizing careful re-balancing of asset allocations the strategy tends to buy stocks when the market has cratered and to buy bonds when the market is booming. It's an approach that cries out to be automated, and a lot of companies are doing exactly that.

MPT sucks toads because:

Its fundamental tenet is buy and hold, no matter what. Like all strategies based on statistics, it assumes that the impossible case can't happen. But it does. The possibility that you exist is trillions of trillions to one when you look at the statistical likelihood that all your ancestors, going back to a particular cell of slime mold, would be the ones that survive to reproduce, and produce exactly the line that yielded you, and yet here you are. A Backward-looking strategy is not predictive, it's just history. There might be better strategies that help you remain solvent after a financial meltdown. But really, who gives a damn. It will take a lot of your personal attention to go short on the survival of the species. I'm not sure it's worth it. MPT has the benefit of being easy, and if things don't go to hell, it probably works.

As we continue to talk about investing strategy we'll cover the mechanics of getting it done and managing the mechanics of balancing and maintaining this kind of portfolio. We'll also talk about Robo Advisors–some easy ways to implement MPT that might work well for you. We'll talk about Vanguard, a remarkable company that does what you'd like an investment company to do–they don't steal your money. Makes them almost unique. We'll also cover low-cost advisors who provide access to DFA funds, which are index funds like

Vanguard that are a bit finer-grained with some recent academic theory that drives them, and finally, we'll talk about how you might continue to use and leverage your traditional advisor if you've decided to stick with one.

Another key element of MPT is rebalancing, which means when your asset allocations change because of differences in the performance of the investment classes, you rebalance to get back to the asset allocations you established. So when the stock market goes to hell and you lose value in your market holdings, but the bond market gets stronger, you sell bonds and buy more stock to rebalance your portfolio. It's a tough thing to do, and the Robo-advisors do it automatically, which scares the crap out of some people. Selling the stuff that's doing well to buy more of the stuff that's tanking is counter-intuitive. But you have to do it if you want MPT to work for you. Naturally, it's the most controversial aspect of MPT.

We'll finish this chapter with a comment from one of the beta readers:

"The rationale against rebalancing is that it is a form of market timing, and timing the market is pretty widely accepted as a bad strategy. People do a poor job of determining when the market is at the top and when it is at the bottom (except in hindsight). There is an interesting metric that tracks how investors under-perform by trying to time the market. It is called the "investor return". Morningstar tracks several funds' investor returns. The gain you get from trying to "buy low, sell high" will have to offset the loss you get from mis-timing the market.
There is another rub against rebalancing. It is the black-hole scenario. Equities drop, so you sell bonds to buy more equities, which drop even more, and you keep chasing equities down a black hole. Historically this has never occurred, but the bad thing is if you don't have major testicular fortitude to go all the way down to the bottom of the hole, you will lose a lot of money – if you panic and sell under-water equities, those unrealized losses are converted to actual losses. That scares a lot of people.

At any rate, when experts disagree on things like rebalancing, I figure it is a hit/miss sort of a thing and just do what makes the most sense to me.”

Fee Only, Low Cost Investment Advisors

Critical Stuff: You need determination, time and knowledge to manage your own investments. If you lack any of those three, then fee-only might be your best bet.

In This Chapter: ADD vs. Senility. Why Fee-only advisors are smarter but poorer. How much handholding to expect. Paying for mahogany.

Doing it yourself often seems like the only choice worth making for managing your retirement investments. Unfortunately, DIY requires intestinal fortitude that few people really have. When the market is moving dramatically (when does it not??) it's very hard to avoid buying yesterday's winners and selling yesterday's losers. But those "investors" are buying and selling history. Ironically, one the most consistent things history teaches us is that chasing the market in that manner is a really lousy strategy.

If you don't trust your ability to resist emotional investment, or you simply don't feel up to the technical challenge, then low cost, fee only advisors are an interesting alternative to either doing the work yourself, using robo advisors (discussed next), or the traditional fee-based investment advisors that charge 1 to 1.5% of your assets under management and collect commissions or back-door payments to sell you expensive products that don't work well. Well, they're a lot more than just an alternative to that last choice.

In a nutshell, these advisors provide basic services and evidence-based

investment strategy, generally built around modern portfolio theory with some possible refinements. Their natural competition is not the legacy high fee investment advisor, it's the robo advisors and/or you. If you'd like someone to answer the phone and give you a little broader strategy than the robos will, then this might be your ideal choice.

It works for me. It's what I do with the lion's share of my investments. I've been very happy with my choice, to the degree that I've recommended them to close friends–not something I would generally do.

One potential advantage of this flavor of advisor is access to DFA funds. Dimensional Fund Advisors is a fund that builds indexes differently than Vanguard does, adding their own analysis to the indexes they build, and offering differently targeted families of indexes. These academically researched factors may improve the performance of DFA funds. Historically they have done a little better in many categories, though lately their performance has seemed about the same as basic Vanguard and similar low-cost index funds. Maybe the secret sauce needs some added relish. Or maybe it's just the part of the cycle that puts them in the barrel–good old Regression to the Mean. You can't buy DFA funds directly, they are available through a limited number of advisors, though the criteria seems to have loosened. DFA had some premise of ethical behavior in the past, but they've been willing to sign up shysters like Matson Money, so it's buyer beware as always.

Low-cost advisors generally charge either a fixed fee or a much smaller percentage, something on the order of .25% or less. I prefer the fixed fee to minimize conflicts of interest. What you generally don't get at that rate–except perhaps in the form of something cookie-cutter–is detailed financial planning beyond basic goal setting . But the planning required to construct an

appropriate portfolio, assistance with the mechanics of moving your funds from wherever they are to a custodian that they recommend (most have relationships with the common custodians like Schwab, Ameritrade, Vanguard, etc.), reporting, rebalancing, and advice on the progress and health of your portfolio is all included. In the process of planning the move or taking over management where your funds are currently parked, they will also usually help with the calculations and assessment of where you are today and where you should be in the future. If they are recommending liquidating some funds they should provide an economic justification for when and how the switching costs will be regained. Some low-cost advisors will provide additional services for a fee, which is certainly much better than paying every year for something you used once–or maybe never.

Assuming the low-cost advisor you select has the mathematical chops, what they will probably do for their money is build you a factor-based or factor-loaded (same meaning, different terms) portfolio that should yield optimized returns for the kind of risk you accept. This will likely be a more complex portfolio than simple indexing but it will be broadly diversified in the fund areas selected. Most advisors go through a goal planning exercise, and build the portfolio according to that result. The outcome of the planning effort should also include an understanding of any special tax issues.

In selecting a low-cost advisor you should look for:

- A general philosophy of investment similar to Modern Portfolio Theory, applying well-researched factors and asset allocation to manage risk and return. They should be able to explain any "tilt" or "slant" they are adding to your portfolio and it's connection to your expectations and risk profile.

- Low turnover and therefore tax efficiency
- Clear explanation of the liquidity of the recommended investments
- Clear explanation of diversification, international exposure, and market targets of stock and bond funds
- Regular reporting with performance metrics
- Clear explanation of custodial arrangements

You can find some very useful Bogleheads discussion of DFA-specific advisors here.

There are not a large number of these low-cost advisors, at least not good ones. The simple reason is that there isn't much demand for them, and it's easier to make money as a fee-based hack. In general, people looking to invest their retirement savings want to sit down in a nice mahogany conference room and sip coffee while the advisor takes care of everything, including budgeting, financial planning and estate planning. This degree of handholding, which most people want, does not fit the fee-only model. On the other hand, the amount of assets under management of many of these low cost advisors is impressive. While $100 million would be a very successful fee-based advisor, some fee-only advisors manage well over $1 billion.

An advisor starting a practice like this will have a long haul before they start seeing serious money. Managing ten clients for $6K to 10K a year is not a lot of money to run a business with. These low-fee advisors often need a hundred clients to start approaching a million in revenue–unless they provide other services, which many do. The nature of a startup using this model presents a substantial barrier to entry that the high-cost advisor doesn't face. Some

traditional advisers do very well with a dozen or so clients with a million in assets under management. My advisor has more than 200 clients and manages over 1.5 billion in assets.

Most fee-only advisors have remarkable credentials. Far better than some fee-based salesman. You find people with advanced mathematics degrees, years of experience in financial markets, degrees in economics and finance instead of some bullshit certification that sticks letters behind bubba's name. And yet they often work from home or in a modest office instead of on the twentieth floor of a skyscraper with fab views, lots of mahogany, and support staff. The reason is simple–they're selling only expertise, not babysitting. And they're geeks, not salesmen. Salesmen usually make more than geeks. If you prefer the skyscraper and the secretary bringing you coffee or a glass of white wine, remember that you and others like you are the only sources of income. You're going to be paying for those trappings. That could be the most expensive crappy box wine you've ever drunk.

Here are a few low-cost advisors to consider. I have limited experience with most of these advisors based on my own efforts to select one to work with (I choose Cardiff Park, and I'm delighted with the work so far). But they pop up repeatedly in my web research on this topic with positive comments. In no particular order:

- Alitora
- Cardiff Park
- Portfolio Solutions
- Evanson Asset Management

- Index Fund Advisors
- Buckingham Asset Management (note: Fee information is hard to find on BAM's sophisticated website, which triggers my bullshit detector, but the highly regarded financial advisor and writer Larry Swerdroe is their director of research)
- FPL Capital Management

I'll add both detail and other firms to this list as I encounter more firms with positive recommendations. As I said, I selected Cardiff Park to manage a significant portion of my investments. I also intend to manage a portion myself, using all the stuff I'm learning. As time slides by I'll report what happens in this book. The version on the website, or on retirement.pressbooks.com (assuming it continues to exist that long) will be kept up to date with my findings for as long as I remember to update the sites. A footrace perhaps between rampant ADD and senility.

Domo Arigato, Mister Roboto

Critical Stuff: A Robot Investment program might provide the discipline you need.

In This Chapter: I need control-we all need control. Simple but smart.

I'm not a robot without emotions-I'm not what you see.
I've come to help you with your problems, so we can be free.
I'm not a hero, I'm not a savior, forget what you know.
I'm just a man whose circumstances went beyond his control.
Beyond my control-we all need control.
I need control-we all need control.

STYX lyrics to Mr. Roboto are property and copyright of their owners.

Lots of cutting and pasting and swiping from other people's blogs going on in this chapter, and Robo advisors are a fast-changing market segment. You can assume that everything you are reading is out of date, but at least you'll get the concept and an idea of how each company is implementing it.

If you like the idea of Modern Portfolio Theory (MPT), but you suspect you might not have the discipline or knowledge to properly manage such a portfolio, then a robo manager might be a great choice for you. There are

quite a number of them now, and you might find some feature in one of the smaller ones that leads you to prefer it, but the two biggest players currently are Betterment and WealthFront. The two leaders look a lot alike, but there are important differences that we'll cover. Some of the newer competitors offer substantially different services. We'll cover those as well.

What do they do and how do they work? The two leaders take a similar approach–they invest a specific amount of money for you using highly diversified low cost Exchange Traded Funds with MPT as their core discipline. We'll cover ETFs in a later chapter, but suffice it to say that an ETF is a lot like an idex fund, but they are publically traded like a stock, and you aren't really buying a little slice of all the stocks when you buy an ETF, you're buying the ETF.

You choose a stock and bond allocation and the Robo system constructs the portfolio, invests in the ETFs and takes care of rebalancing and tax loss harvesting. For Betterment and WealthFront the portfolio is largely fixed with whole-market index funds (both US and international) and diversified bond funds. Some of the other robos offer more flexibility. You might consider the inflexibility to be a problem, but it's the accepted way to implement MPT.

The other big variations are cost, custody and account types. The fees range from free to 50 basis points (0.5%) with Betterment and WealthFront in the 0.15 to 0.35% range depending on the amount invested. That sounds great when compared to 1 to 1.5% for a financial advisor that might be screwing you with conflicts of interest, but it's not insubstantial, especially for an automated service offering a simple portfolio and management services that you could implement yourself. Some of the services (Betterment and Wealthfront included) require you to transfer your accounts to their custodian while others

offer a choice of leading custodians. All of the robos I've found will manage both Taxable and IRA accounts, but some don't handle SEP IRA.

Generally, the more complete the automation is, the less flexibility the robo offers. You give up flexibility for ease of use. But the tradeoff is not just a matter of the limits of automating complexity, it's investment style. The rules of MPT are fairly simple and the Boglehead-style simple portfolio is what these companies are aiming to implement. If you're looking for a more active trading style you need to look elsewhere.

Betterment was one of the first robo advisors and they currently have the most sophisticated website. Their web developers are clearly top notch. The tools they provide are very helpful for investors at any level of experience. There's a useful review here. Initially it was fairly expensive, but that's been changed. Betterment is a registered investment advisor, and securities in customer accounts are protected up to $500,000 with Securities Investor Protection Corporation (SIPC). Before you get all warm and fuzzy about that protection, understand that SIPC isn't equivalent to FDIC bank account protection. We'll cover SPIC protection in the section called "What's insured, and What Isn't".

Many people will use betterment as a savings investment vehicle, connecting to their checking account directly and sending periodic sums of money to the account–either automatically or directed or both. The lowest level Betterment Account is called a Builder account with a fee of 0.35% per month. The range is $0 to $10,000 with a minimum of $100 per month auto deposited from your bank account. If you don't set up auto deposit they charge you an additional $3 per month. For all levels there are no trade fees, no transaction fees, and no rebalancing fees. Betterment changes their fees fairly often, so don't trust my

numbers. The growing number of robo-advisors has undoubtedly put pressure on their fee structure.

From $10,000 to $100,000 the fee is 0.25%. Above $100,000 it's 0.15%. So if you have $9999 in a Betterment fund they charge $24.99 per year. If you if you have 99K they charge you $247.50 per year. If you have $100K they charge you $150. At $1,000,000 the fee is $1500. All that feels pretty reasonable , especially if you've been recently hosed by a financial advisor or broker. The primary question of course is what will they do for that money, and the answer depends more on your nature than on theirs. For you to duplicate what they do manually will certainly take some of your time. If you have the discipline and the time, then go for it. If there's something better you could do with your time then a Robo is a good deal.

The asset mix at Betterment has evolved recently to include international stocks and bonds, which was previously (and oddly) missing. The current stock portfolio is:

US Total Stock Market Vanguard U.S. Total Stock Market Index ETF (VTI)
US Large-Cap Value Stocks Vanguard US Large-Cap Value Index ETF (VTV)
US Mid-Cap Value Stocks Vanguard US Mid-Cap Value Index ETF (VOE)
US Small-Cap Value Stocks Vanguard US Small-Cap Value Index ETF (VBR)
International Developed Stocks Vanguard FTSE Developed Market Index ETF (VEA)
Emerging Market Stocks Vanguard FTSE Emerging Index ETF (VWO

and the bond portfolio is:

Short-Term Treasuries iShares Short-Term Treasury Bond Index ETF (SHV)

Inflation Protected Bonds Vanguard Short-term Inflation-Protected Treasury Bond Index ETF (VTIP)
US High Quality Bonds (IRA accounts) Vanguard US Total Bond Market Index ETF (BND)
National Municipal Bonds (Taxable accounts) iShares National AMT-Free Muni Bond Index ETF (MUB)
US Corporate Bonds iShares Corporate Bond Index ETF (LQD)
International Developed Bonds Vanguard Total International Bond Index ETF (BNDX)
Emerging Market Bonds Vanguard Emerging Markets Government Bond Index ETF (VWOB)

According to Betterment's site, their asset allocation favors value ETFs. They do not offer REITs or Commodity ETFs. Taxable accounts of at least $50,000 can take advantage of Betterment's automated tax loss harvesting tools.

WealthFront: WealthFront is a relatively new Robo, but it has grown quickly, probably because of it's enhanced tax loss harvesting features. They currently manage about 2.2 billion in funds. The rest of their features are similar to Betterment, with some pricing and fund offering differences. Their management fee is 0.25% of assets over $10,000 plus ETF fees. The investment strategy is a relatively pure MPT approach plus REITs. They currently do not offer U.S. Governments bonds because the yield is so low.

WealthFront offers advanced tax loss harvesting for people with more than $500,000 invested in a taxable account. Instead of using an ETF or Index Fund to invest in U.S. stocks, Wealthfront's Tax-Optimized Direct Indexing directly purchases up to 1,000 stocks from the S&P 500 and S&P 1500 indices and an ETF of much smaller companies. This allows them to harvest tax-losses

directly from the change in value of individual stocks. According to WealthFront's analysis this enhanced tax loss harvesting can add as much as 2.03% to annual investment performance of the taxable accounts. Lovely if it's so. There's an interesting whitepaper on the process here . Okay, it's not "The Martian", but it's not very long and it's in English.

WiseBanyan: This robo advisor offers an interesting twist–it's free. The good folks atWiseBanyan (interview of WiseBanyan's co-founder) believe that asset allocation is a commodity that they can offer at no charge (the ETFs still charge a fee) while making money by selling add-ons. One such add-on which will launch soon is tax loss harvesting. But for those with retirement accounts that can't benefit from TLH, WiseBanyan should be a serious consideration.

WiseBanyan

Robo Advisors That Work With Existing Brokerage Accounts–There are several automated advisors that do not require investors to transfer funds out of existing accounts. Instead, the advisor manages the asset allocation, rebalancing and dividend reinvestment from within an existing account. These services also offer asset allocation advice for those who prefer to manage their own accounts.

FutureAdvisor: Working with Fidelity and TD Ameritrade, FutureAdvisor(FutureAdvisor review) offers a robust investment evaluation tool. Users can connect their existing investment accounts to FutureAdvisor's tool for free. FutureAdvisor then evaluates the investments based on performance, diversification, fees, and taxes.

In addition, FutureAdvisor recommends changes to an investor's asset

allocation. Its recommendations walk through which existing investments should be sold, what new investments should be purchased, and why. The tool even allows investors to reject some of the recommendations, in which case FutureAdvisor will reevaluate the remaining investment recommendations. The tool considers the tax consequences of selling an investment as part of its evaluation.

For an annual fee of 0.50%, FutureAdvisor will implement the recommendations, including future rebalancing and dividend reinvestment. For those with a Fidelity 401(k) that offers BrokerageLink, FutureAdvisor can also manage an investor's 401(k).

Blooom: Unique among robo advisors, Blooom helps investors manage 401(k) retirement accounts. This presents two significant challenges. First, the service must be able to work with countless firms managing 401(k) retirement accounts. Second, it must be able to work with the investment options available in each 401(k). Blooom has managed to overcome both challenges.

Users can connect their 401(k) to Blooom and generate an analysis of their investments. Blooom uses the image of a flower to show its evaluation. A beautiful flower means the investments are spot on in Blooom's opinion. A wilted flower with a fly on it means there's work to be done. Blooom then recommends changes to the portfolio.

blooom 401(k)

For $10 a month, Blooom will implement the asset allocation it has recommended and rebalance the account to keep it in line with the plan.

Active Traders

Several robo advisors offer tools to help those looking to invest in individual stocks. Not a wise choice for serious retirement savings, but if you have some mad money to play with that you are willing to take a risk with, then have at it. Not for me, but then I don't buy lottery tickets either.

Motif Investing: For those interested in active trading, Motif Investing (Motif Investing review) offers a unique spin on the robo advisor space. More closely aligned to a brokerage firm, Motif enables users to create a basket (called a motif) of stocks and ETFs. Once built, an investor can buy a motif of up to 30 stocks and ETFs for $9.95. Investors can create their own motifs, invest in motifs built by Motif Investing, or invest in motifs built by other investors on the platform.

Motifs range from the traditional (e.g., Index Fan motif consisting primarily of Vanguard ETFs) to the more exotic, such as one motif called the Caffeine Fix that buys coffee related investments.

Motif Investing

Personal Capital: Last on our list is a service that combines sophisticated investing tools with a real live investment advisor. Personal Capital has become known for its free financial software to track your investments. Beyond the software, however, Personal Capital offers wealth management services for accounts of $100,000 or more. For U.S. equities, Personal Capital uses tactical weighting through individual stock investments in contrast to more traditional indexing. Clients use Personal Capital's software to track their investments,

asset allocation, and fees. The cost for its services starts at 0.89% of assets under management.

The robo advisor space is young. Most entrants are not profitable, instead relying on significant venture capital funding. The industry, however, is growing. Several companies already have over $1 billion under management.

The big mutual fund companies are taking notice. Fidelity recently partnered with Betterment to offer the robo advisor's tools to investment advisors that use Fidelity's platform. Charles Schwab has announced that it will introduce its own automated investment tool soon.

Note: This chapter is particularly heavy with lifted content that I gathered from a site I haven't been able to locate again to give proper credit. If the author contacts me I'll be glad to provide credit and a link to your site.

Stocks: Risk, Return, and Expenses

Critical Stuff: Risk management means making sure you are being compensated for risk–not avoiding it. No balls, no blue chips.

In This Chapter: The Stale Donut Theory of Risk. Why Diversification won't save you. The two fund portfolio.

The popular notion of stock investing is that someone very clever uses their knowledge of the market and an understanding of the potential for individual companies to be more or less valuable to buy or sell the right stock at the right time, and thereby make a killing. The first thing you should understand about that concept is that it revolves around stocks being mispriced. The idea assumes the rest of the people buying and selling stocks do not know as much about the market and the companies whose stocks comprise it to have already taken that information into account.

That's not likely at any time–there are plenty of bright people looking at every publicly available aspect of the market and betting their money on what they know. But it's even more unlikely on a consistent basis. People with specific knowledge about the future performance of a company are barred from trading on that knowledge. People can and do get sent to the slammer for that. Ask Martha Stuart how that works.

So let's start with the assumption that the the markets are efficient about pricing. That doesn't mean they aren't irrational and emotional. The market

rises and falls, and it's not really understandable or quantifiable except in hindsight. That makes investing in stocks risky.

That volatility and risk makes the market a perfect example of Regression to the Mean. But remember that for a high-flying stock to regress to the mean it has to rip right through that average return line and get all negative for a while. No fun there, buckwheat. That reality is why individual investors generally underperform the market by 5% or more. They buy high and sell low. And they keep on doing it until they don't have much to buy with.

In a different world the answer might be to invest in bonds instead of stocks. Unfortunately the bond market is equally efficient in that interest for bonds is as low as possible for the economic environment and risk level for the bond not being repaid.

In fact every kind of investment–even hiding silver coins in your mattress–will have a market level of risk and reward if the investment is liquid, meaning it can be sold with relative ease for the market value. Your investment in any market should assume that the assets are correctly priced because the market is competitive. This makes diversification imperative, because concentration on a narrow class of assets increases risk without increasing reward. Putting all your money in General Motors is more risky than owning a piece of all the car companies, which is more risky than owning the entire Dow-Jones index, which is more risky than owning a little bit of every US stock, which is more risky than owning a little of all the world stocks, which is more risky than owning a mix of investments that are not dependent on each other.

All this talk of risk may make you squirm. If you ask the average Joe if he'd like to make a risky investment, the answer would generally be "NO!" But risk is

really the only thing the market pays for other than overall economic growth. And I'm not talking about just the stock market, I mean the everything market. If you buy a day-old pastry at a bakery you pay less because there's a bigger risk that it will be stale when you eat it. You've been compensated for that risk with a lower price. If the price was the same, you'd take the fresh pastry. You are refusing to accept an uncompensated risk. Good for you. Now apply that to your investments where it's a heck of a lot more important than a slightly stale jelly donut.

For your investments you certainly consider stocks to be riskier than treasury bonds. You expect a higher return from stocks–that's how you are compensated for risk. And the major risk is that the compensation won't happen, and the value of your investment might go down.

Most of the concepts of investment theory boil down to trying to be sure you are being compensated for the risk you take. If you are, then in the long term, you'll probably be fine. Risk can't be eliminated, though, only compensated, and as we said before there's risk in every strategy, including stuffing your mattress.

To fully assess a risk you need to look at all the factors involved and any available mitigation. For example, there is no way to reduce the risk of owning stocks just by diversifying within the stock market. The entire world stock market could and does sometimes go down in value and you lose money despite diversification. You might hold funds for small cap, mid cap, and large cap companies. You expect the small cap companies to offer a premium return because of a higher risk, and you moderate some of that risk by holding mid and large cap funds. The diversification helps your overall holdings but doesn't eliminate the risk of those small cap funds.

The problem is that all those stocks and all those companies are correlated in some ways. Besides the ordinary English language version of that word there's a math-speak version of correlation that deals with the independence (or lack thereof) of two variables. For example, the electric company might plan to reduce energy generation on a mild day, or plan to increase it during extreme weather because there is a correlation between weather and energy use. It's possible to calculate the degree of correlation of simple variables or to model the correlation of complex things like stock markets. Such modeling makes it painfully clear that there is a limit to the risk management benefit of diversification. And no, I'm not going to explain how to do the modeling.

Owning an individual stock is particularly risky and the risk is mostly uncompensated. The market doesn't offer any kind of premium for buying an individual stock, the price for the stock as part of a fund is the same as it is when purchased individually, so you bear the risk with no reward for it. All the unique risk of the company (the brilliant CEO gets hit by a bus, a competitor pursues a successful lawsuit, etc) is uncompensated, and it can be substantially reduced by diversification.

This isn't a theoretical situation, there's proof of it everywhere you look in financial history. Yes, people who bought Apple in 1999 did very well, but in the same period of time, a huge number of companies disappeared entirely. Big ones, small ones, solid ones, shaky ones. Apple could certainly have disappeared–there were times when that looked inevitable. The crystal clear path to success is only visible looking back. Steve Jobs as the visionary savior? When he got the boot he was considered nothing more than a liability.

The bottom line here is that investing is not speculating, and speculating is

not investment. We're talking about your retirement, not a little stock bet you made when you're 22 that you hoped will yield enough money so you can buy a motorcycle (not that I'd know about that, and no, it didn't work out). Your interest should be in investment, and you should make certain that the risk and reward are balanced and appropriate. That's the aim of asset allocation.

Diversification reduces the potential for loss, but it also reduces the potential for gain. Striking some kind of balance for just risk and reward would seem kind of straightforward, but different assets show substantially different historic risk/reward profiles. If you took a basket of assets and plotted each type of asset's risk vs. reward you'd find a somewhat lumpy line with reward trending upwards as risk increases. If you wanted to establish a specific level of risk and reward that suited your available funds and intestinal fortitude you could mix those lumpy lines together and come up with a recipe that feels good to you. Presto–you just invented asset allocation and Modern Portfolio Theory. We'll cover that in more detail later, but for now, let's simply recognize that stocks are going to be a part of your strategy if for no other purpose than that equities permit you to arrange your asset holdings to have more compensation for an equal amount of risk. It's probably the only mispricing that is consistently available in the investment world. We'll cover how that might work in the chapters on asset allocation, but for now, we're just going to concentrate on what form your stock portfolio should take.

Let's just flat out eliminate buying individual stocks. It's gambling. If you want

to do that, then have at it, I don't have any advice for you. Maybe you'll find some value in the fitness section of this book.

Let's also eliminate buying a selection of mutual funds through your fee-based financial advisor. They won't be able to deliver higher performance on a long-term basis. If performance is all the same in the long run, then the big things that matter are cost, diversification, and taxes. We've talked about fee-based advisors enough. If you need major league handholding then it might be your only option, but you'd better learn to live on a very small percentage of your retirement savings because there won't be much left for you.

Fortunately, there are a number of superior approaches to owning stocks that offer diversification, low cost, no conflict of interest, tax advantages, and low churn. Here are some of the choices:

1. You can take the information in the asset allocation chapter of this book, do a little research on Bogleheads.org or any of the many books and/or online resources listed in the Sources section, and design a portfolio for yourself. Then set up an account on Vanguard or one of the competing companies that offer low-cost ETFs and index funds and build out your portfolio. We'll talk about bonds, cash, and other investments later. But your stock portfolio on Vanguard might be:

- 60 percent in the Vanguard Total Stock Market Index Fund (VTSMX)
- 40 percent in the Vanguard Total International Stock Index Fund (VGTSX)

That's it. Those two funds have no load, no transaction costs, and expense ratios of .017% and ,022% respectively. Contrast that to the 2% expense

ratio, loads, transaction costs and other costs that your financial advisor sticks you with because he's getting a commission. Yes, your math is right, you're paying a hundred times more for your portolio, and that's before you pay the assets under management fee.

2. You can use a low cost, fee-only advisor and research any other services you need on the web. Some low-cost advisors offer either hourly or flat fee services in addition to investment management. Paying a high yearly commission for services you only use once seems nuts, but I've done it. Changing that is what this book is really all about.

3. You can use Robo advisors. I think those really benefit younger people who are saving for retirement.

Bonds: Striking A Balance

Critical Stuff: Bond yields are never what you'd expect. The market is intentionally opaque. Tread carefully, and if in doubt, buy bond index funds and treasuries.

In This Chapter: Fifty shades of risk. WTF is a coupon rate? Tax efficiency and bonds.

Let's start bass-ackwards with a strange observation, and then some basic nomenclature about bonds, and then we'll talk about why you'd have them in your retirement portfolio.

The observation is this–if you're retired and your income is now much lower than during your career, the tax-free bonds you've invested in may not make sense anymore. Just an observation, but it's surprisingly rare to ever hear this simple fact mentioned. Tax-free bonds are generally lower return and often concentrate risk. There may be no reason other than inertia for them to sit in your portfolio.

Okay, now back to a more reasonable flow for this chapter.

Simply put, a bond is a debt cut up into handy bite sizes, no different than five members of your family lending money to Cousin Wally except there's a professional assessment of the quality of the loan and the term and the interest rate is set. Bond purchasers are lending money to corporations or

government with some minor difference in how the bonds are initially sold. Corporate bonds are bought by consortiums of investment banks who then resell the investment to investors. Government bonds are sold at auction where investors bid to buy them.

This chapter gets very technical, and the information is mostly sourced from Bogleheads.org where you will find a lively discussion of all the technical elements of bonds. If you don't care to dive deep, all you need to understand is:

- build your bond portfolio around a core of Treasuries
- add diversification and higher return with bond indexes that cover markets appropriate to you and your tax status.

That's about it. Now on to the confusing and painfully complex world of bonds. There's some special nomenclature that needs translation.

The term of the loan is set by the **maturity date**, which is the day that the loan will be repaid

The interest paid on the bond is set by the **coupon rate**, which also specifies how often the interest payments are made. The coupon rate can be fixed, variable (floating) or inflation indexed.

Some bonds include a **call feature**, which allows the issuer to repay the loan early. This is not advantageous to the buyer, so the addition of a call option usually offers a higher coupon rate. Some bonds have a **put option**, which allows the buyer to force repayment at specific dates. Put options generally lower the coupon rate.

Bonds with **senior debt** have priority over other debt in the event of a default. **Subordinated debt** is paid after other debts have been paid.

Most moderate-income investors will find bond increments to be too high and the terminology and risk too challenging for comfort. You can simply buy indexed bond funds, either as mutual funds or ETFs. In the event you choose to buy actual bonds, you'd be wise to consider the advice of the economist Eugene Fama:

"The equity factors pay 4% – 8% per risk unit a year, but the fixed income factors pay much less. If your goal is to pursue returns, don't bother taking a lot of fixed income risk. Keep your fixed income short and high-quality to dampen portfolio volatility. This will allow you to 'spend' the extra risk units among the three stock factors, where the expected return payoff is bigger."

Bonds are best used to balance the risk of your stock investment and allocate your investment assets so they have good potential to recover in the time frame you'll need them. If you're young, your percentage of bonds will likely be low because you have longer to recover. If you're nearing retirement age the bond percentage will likely be higher.

Treasury bonds are a special case of bonds that Bogleheads.org does a great job of explaining.

- **Treasury Bonds** are issued by the US treasury in groups of three maturity ranges
- Bills have a range up to one year;
- Notes have a range between one year and ten years;

- Bonds have a range greater than ten years.

Treasury bonds are usually not callable. Treasuries also carry the credit backing of the US government. The interest income is exempt from state tax. Treasuries can be purchased through brokerages and banks as well as through an individual account at Treasury Direct. Government agencies also issue debt, some of which is backed by the credit of the government and some which is not.

Treasury Inflation Protected Securities provide for inflation-indexed income and inflation protection for the bond's principal. The bond pays a fixed real interest rate based on a principal value indexed to the CPI-U inflation measure. Like all treasury bonds, inflation-indexed treasuries have the "full faith and credit" backing of the Treasury and interest income and inflation adjusted accruals are exempt from state taxation. The inflation-adjusted accruals, however, are taxable to the federal government as they accrue. This "phantom income" taxation makes the bonds candidates for placement in tax-advantaged accounts.

Corporate bonds are issued by corporations and are often callable. Since a corporation can default on it's debts, corporate bonds are subject to credit risk and usually pay higher coupon interest rates over comparable term treasury maturities as compensation for this risk.[6] Corporate bonds are subject to federal and state income tax.

Municipal bonds are issued by states and localities. These bonds are subject to credit risk. [7] Many municipal bonds are also callable. The bonds are generally exempt from federal tax, although some private revenue municipal bonds are subject to the federal alternative minimum tax. A tax-exempt bond is also usually state tax exempt for residents of the state issuing the bond. Due to

these tax preferences, municipal bonds generally offer lower coupon interest rates than do comparable term treasuries and corporates.

Other types of bonds:

Zero Coupon bonds are accrual bonds and do not pay current coupon interest. They are issued at a deep discount from par value and compound continuously at the coupon rate. The bond holder receives the full principal amount as well as the value that has accrued from interest on the redemption date. Zero coupon bonds may be created from fixed rate bonds by financial institutions by "stripping off" the coupons. In other words, the coupons are separated from the final principal payment of the bond and traded independently. Individuals are taxed on the annual accrual of income, although the investor receives no current interest payment.

Asset-backed securities are bonds whose interest and principal payments are backed by underlying cash flows from other assets. Examples of asset-backed securities are mortgage-backed securities (MBS's), which include GNMA securities backed by the full faith and credit of the US treasury, collateralized mortgage obligations (CMOs) and collateralized debt obligations (CDOs).whose underlying securities are often such assets as auto loans or credit card receivables.

High yield bonds are corporate bonds with lower credit quality than top credits. These companies are at much greater risk of default than higher-quality credits and, as a result, pay higher coupon interest rates than comparable high-quality corporate bonds.

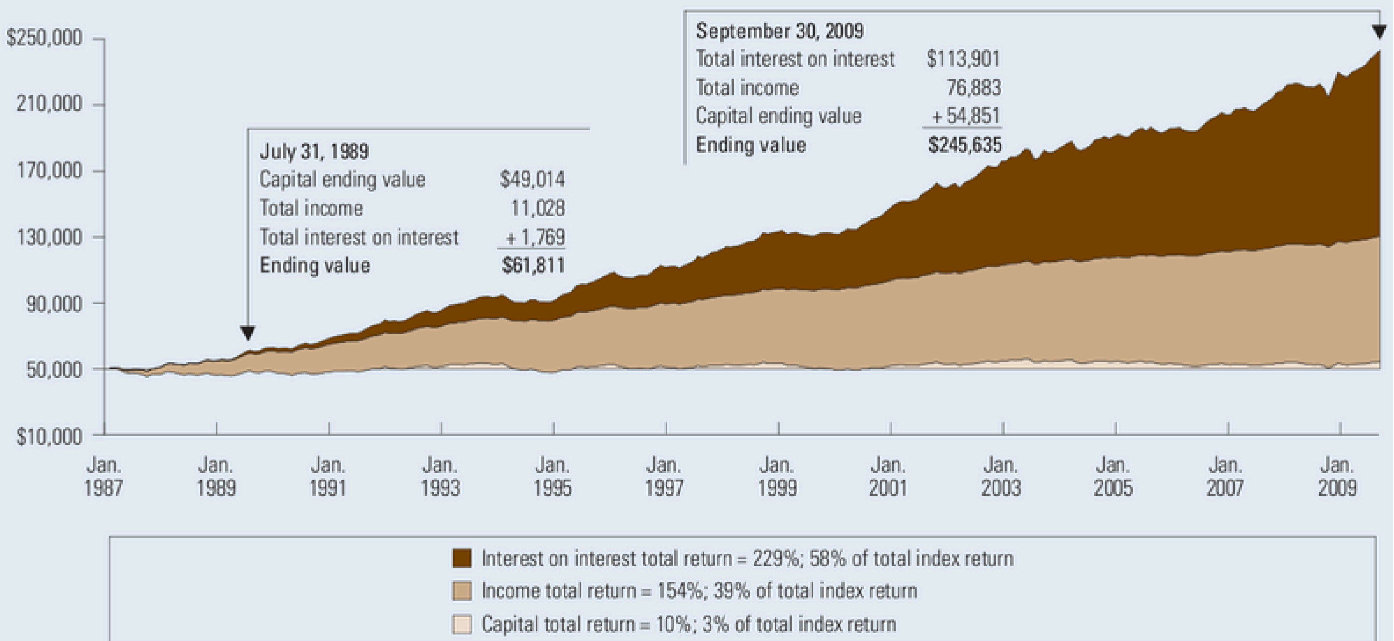
Sources of return

There are three sources of return for a bond:

1. Return of principal
2. Interest (coupon payments)
3. Interest-on-interest (reinvested coupon payments)

According to Fabozzi in the *Handbook of Fixed Income Securities*, 1991, p97: "In high interest rate environments, the interest-on-interest component for long-term bonds may be as high as 70 percent of the bond's potential total dollar return." In low interest rate environments, the principal is likely the largest source of value of all but the longest bonds.

Illustration of the three sources of bond return:



Risks

Each of the following risks of bonds carries some premium as compensation for bearing these risks. The amount of that premium varies according to the market's assessment of the likelihood of the adverse event occurring.

Interest rate risk

Interest rate risk, also called price risk, is that the value of a bond fluctuates depending on the interest rate. Also known as "market risk." The amount of interest rate risk assumed is measured primarily by the duration (and

secondarily by convexity). See below for more information on how bond prices react to interest rate changes.

Interest rate risk is in some sense an artifact of the traditional framework which looks at short-term returns. Over longer periods, longer duration bonds will have a more certain return than short-term bonds, as a quote from John Campbell and Luis Viceira's academic text, *Strategic Asset Allocation* (pp86-87), makes clear:

"If one uses conventional mean-variance analysis, it is hard to explain why any investors hold large positions in bonds. Mean-variance analysis treats cash as the riskless asset and bonds as merely another risky asset like stocks. Bonds are valued only for their potential contribution to the short-run excess return, relative to risk, of a diversified risky portfolio. … A long-horizon analysis treats bonds very differently, and assigns them a much more important role in the optimal portfolio. For long-term investors, money market investments are not riskless because they must be rolled over at uncertain future interest rates."

Because unexpected inflation changes that picture somewhat, the reduced risk of longer-term bonds is primarily true when discussing inflation-protected bonds in real dollars (or nominal bonds with nominal liabilities).

Credit risk

Credit risk is a risk that the issuer of a bond may default. Also known as "default risk."

Credit risk is assessed by the major ratings agencies (Moody's, S&P, and Fitch). Each credit rating has an expected rate of default, which increases

substantially in lower tiers. For a given credit rating, the default rate has historically been lower for municipal bonds than for corporate bonds. Wikipedia has tables of how the ratings compare between ratings firms and of historical default rates.

Call risk

Call risk is a risk that the issuer may call the bond, terminating a stream of income for the investor. This risk is often called prepayment risk for mortgage backed securities. Call options embedded in a bond lead to negative convexity.

Reinvestment risk

Reinvestment risk is a risk that when a bond matures or is called, an investor may have to reinvest the proceeds in a bond yielding a lower interest.

Inflation risk

Inflation risk is a risk that the interest from a bond may not keep up with inflation. TIPS are inflation-adjusted and therefore largely immune to inflation risk. Also known as "purchasing power risk."

Liquidity risk

Liquidity risk is the risk that you may not be able to extract the remaining value from your bond in the timeframe needed without losing a disproportionate amount of value. Thinly-traded issues (such as most corporate, municipal, and TIPS issues) have liquidity risk. The liquidity premium is expected to rise in times of crisis. Also known as "marketability risk."

The presence of liquidity risk can be seen most clearly in "off-the-run" Treasury bonds, where an older but otherwise identical bond trades at a reduced price/ higher yield simply because it is less liquid.

Other risks

These risks are either not important for individual investors or are generally wrapped into the risks above (e.g. credit risk commonly encompasses event risk). They are included for completeness.

Yield curve or maturity risk

Generally only important in hedging situations.

Exchange rate or currency risk

Only relevant for non-dollar-denominated bonds, which are not recommended by Mr. Bogle.

Volatility risk

Bonds with embedded options (commonly a corporate bond with a call option) are affected by volatility, because the value of an option depends on volatility. If the price of an issue is highly volatile, the likelihood of a random fluctuation straying above the strike price is much greater.

Political or legal risk

Tax-code changes and regulatory decisions can all affect the value of a bond.

Event risk

A type of credit risk which affects many firms due to a single event (and therefore event risk cannot be fully diversified away).

Sector risk

A type of credit risk which affects all or many firms in a single sector.

Credit ratings

Three major ratings agencies assess the likelihood of a bond defaulting and assign that bond ratings according to a standardized scale.

Bond Ratings [8]

grade	risk	moody's	s&p/fitch
Investment	Quality Highest	Aaa	AAA
Investment	High Quality	AA	Aa
Investment	Strong	A	A
Investment	Medium Grade	Baa	BBB
Junk	Speculative	Ba.B	BB,B
Junk	Highly Speculative	Caa/ Ca/C	CCC/ CC/C
Junk	In Default	C	D

For a given credit rating, the default rate has historically been lower for municipal bonds than for corporate bonds.

Factors affecting bond prices

See Bond pricing for definitions of bond pricing terminology. (This is an advanced topic.)

New issues

The coupon of a newly issued bond is primarily set by two major factors: the credit quality of the bond and the maturity of the bond. It is axiomatic in the investment markets that if investors are to invest in risky securities higher risk must be compensated by higher expected return. Thus the US Treasury pays a lower coupon on its debt than do corporate borrowers subject to default risk, Non treasury debt is graded for credit quality by three rating agencies. The above table describes the ratings.

The longer the maturity of a bond the greater the risk to the bondholder. Longer time horizons increase the likelihood that a bond issuer will become a greater credit risk through bad management decisions, the deterioration of economic conditions, or the company engaging in future merger and acquisition activity which changes the leverage of a company's balance sheet. Longer horizons also increase the likelihood that a bond's coupon income will be eroded by higher than expected inflation. Finance economics defines a bond's expected return to be comprised of three basic building blocks: first, the risk-free rate as defined by the current yield of a treasury bill; a time horizon premium to compensate investors for the risks of longer maturities; and a default risk premium to compensate investors for bearing credit risk. [9] These building blocks can be visualized in the following table:

Default Risk Premium

Time Horizon Premium
T-bill Rate

Bonds on the secondary market

Once a bond has been issued, it trades on the secondary market, and fluctuates in price until it matures. A bond will change in price for two main reasons:

1. The bond's credit rating has changed (either upgraded or downgraded).

2. Interest rates have changed.

Unless a bond is falling into or out of default, price movements associated with changes in credit rating tend to be infrequent, although during periods of economic distress and economic recovery credit rating changes can be significant price factors. The ever present driver of changes in a bond's market value comes from fluctuations in current market interest rates. We can understand this law of bond pricing by considering the following scenario. Let us assume that we purchase at issue a $1,000 ten year bond yielding a 5% coupon. This entitles us to $50 of annual income. Assume that one year later, interest rates have risen to 6% and we wish to liquidate the bond. No rational investor will pay $1,000 for $50 of income, when he can receive $60 per annum for the same $1,000 dollar investment. In this interest rate scenario, our 5% bond will have to decrease in market value until its current yield approximately produces a 6% return. A similar, yet opposite price movement occurs if interest rates fall. Suppose, in our scenario above, interest rates fall to 4 percent during the year after our purchase. Our $1,000 bond produces $50 of annual income in an environment where investors can only receive $40 of annual income from a newly issued bond. Our bond will therefore rise in price

until it provides a purchaser with a 4% return. Thus we come to the basic rule of bond price movements in the open market.[10]

when	then
interest rates rise	bond prices fall
interest rates fall	bond prices rise

To calculate how much prices will rise or fall, please see Duration.
A corollary principle to this price movement is the fact that, all things being equal, fluctuations in price are greater for long maturities than for shorter maturities. [11] At any given time in the secondary market one is likely to find any number of bonds selling at a discount over par value, or at a premium to par value.

Role in a portfolio

See Asking bond questions for tips on how to ask about bonds on the Forum.

Bonds are typically used to stabilize the value of a portfolio and/or produce a stream of income. Longer-term bonds have higher correlation with equities; shorter-term bonds provide more diversification benefit but lower yield.

Long- vs. short-term

Boglehead and financial expert William Bernstein recommends limiting bond holdings to short-term funds, on the basis of their relative immunity to the risk of unexpected inflation. An article by Vanguard, however, argues that when the yield curve is particularly steep, running to short-term bonds for safety can result in losses if the yield curve flattens. A common recommendation of

other experts is intermediate-term funds. Long-term bonds have historically returned no more than intermediate-term bonds, but with far greater volatility–in other words, their risk has not been rewarded. Yale endowment manager David Swensen recommends long-term Treasuries, however, as part of a portfolio dominated by equities, as they will provide the biggest counterweight to the collapse of other asset classes during a deflationary crisis.

Even proponents of short-term bonds such as Dr. Bernstein are comfortable with longer-term holdings in inflation-protected securities such as TIPS, as they no longer carry any risk of unexpected inflation, leaving them vulnerable only to a real rate rise (which if held to the duration incurs only an opportunity cost).

While you should always keep the duration less than or equal to your investment horizon, unless you have a specific funding need to be met at a specific date (in which case a Zero-coupon bond is the risk-free solution), you should choose between short-term and intermediate-term funds. The former is lower risk but the latter has historically been rewarded with higher overall returns.

Credit quality

The *Bogleheads' Guide* authors recommend the use of Vanguard's Total Bond Market, which contains investment-grade corporate bonds. Mr. Bogle also recommends Total Bond Market, although he seems to prefer Vanguard's Intermediate-Term Index Fund for its lack of MBS's. By contrast, Boglehead and bond expert Larry Swedroe recommends only the very highest quality investments for bonds (and specifically recommends against Total Bond

Market because of its negative convexity), citing evidence in which the risk of corporate bonds has not been historically rewarded. Yale endowment manager David Swensen also recommends only Treasuries. Finally, Boglehead and financial expert Rick Ferri advocates for not only the inclusion of investment-grade corporate bonds but also high yield bonds, on the basis of their diversification benefits.

Perhaps the best conclusion that can be drawn from the predominance of highly respected and conflicting advice is to:

- Ensure that your bond holdings are built around a core of Treasuries.
- If you choose to include corporate bonds, understand the risks you are taking (moderate in relation to stock investing but nevertheless quite real), and do not include too high a proportion. A good benchmark would be the market portfolio represented by Vanguard's Total Bond Market fund.
- If you choose to include high-yield bonds which incorporate considerable default and call risk, prudence suggests that you take the funds from the equity portion of your asset allocation rather than the bond portion.

Taxes

Almost all of the return on a bond or bond fund comes from the dividend yield, which is fully taxed; in contrast, stocks get most of their return from price appreciation, which is not taxed until the stocks are sold and is taxed at the capital-gains tax rate. Therefore, bonds are widely regarded as being less tax-efficient than stock index funds (which rarely sell stock) and should be held in tax-deferred accounts when possible. For investors in high tax brackets without sufficient taxable space, Municipal bonds are likely the preferred

solution; these bonds are not taxed but there is a cost in lower yield. Investors in low tax brackets should calculate their after-tax return on taxable bonds in taxable accounts to determine whether or not to use municipal bonds.

So, now we've circled back to our observation from the beginning of this chapter. If you read all the way through and perhaps looked at a few of the lonks, you're probably feeling that you understand bonds pretty well. If you're anything like me, understanding bonds is the intellectual analog of eating Chinese food. Half an hour later you're stupid again.

Cash: How Much

The simple answer is you need two years of liquid funds equal to the amount you take from retirement savings each year. That doesn't mean you need to replace all the funds you use for two years. Your payment from social security, from annuities, or a pension will continue. You just need to replace the amount you take from savings. The two years of liquidity isn't so you can survive armageddon–you'd need a lot more than liquid funds to do that. It's so you can deal with market volatility without destroying your portfolio.

In our *Retirement Financials in One Chapter* chapter (presented by the department of redundancy department) we talked about the effect of volatility on the stock portion of your savings. If the market dives twenty percent and you continue to sell stock to support your lifestyle, you'll be reducing the number of shares you have available to recover with. You'll sell more shares than you usually would, and the result will be a portfolio that's way out of balance. Even without selling shares you're going to have to do some challenging things to your portfolio in a downturn. For example, if you determined that you'd need a 60/40 stock to bond split to make your savings last, and a downturn reduced the value of your stocks by 20 percent, your portfolio is now 68/32 bonds to stocks. The prudent thing to do is sell bonds and buy stocks. I know, that sounds mechanical and stupid, but if you run simulations on that heavy bond portfolio vs. your age you probably won't like the result. It's a tough thing to do emotionally, which is one reason it's sometimes good to have an advisor –even if it's a robot. It might help to consider that it's the Modern Portfolio Theory version of "buy low, sell high".

Doing the right thing is that much tougher if you continue to take money out of your portfolio when all hell is breaking loose. Two years of liquid funds ensure that you won't have to do destructive things to your portfolio in order to just live. It's the long-term version of not having money in the market that you need right away.

Annuities: The Baited Trap

Critical Stuff: Annuities are expensive and unsuited for most retirement savings.

In This Chapter: Fire the bugger. Betting on dying.

Annuities look like the perfect retirement investment. You get a higher payout than you could with most other investments and you are guaranteed a return. There are numerous flavors of annuities so you can choose the one that's right for you. In most cases, an annuity grows tax-free. What could be wrong?

In a word: Everything. Actually, the number of people that annuities make sense for is tiny, and they can be devastating for your retirement goals.

Lots of books on retirement simply say don't get an annuity. I think that's an oversimplification and inadequate advice. But you need to be very careful in considering one, and you have to do a lot of work to understand what you're getting into. The biggest problem with an annuity is that it can be very hard or impossible to extract yourself from one if you find it's a bad choice. There are many rules and conditions, many hidden charges and expenses. Many ways the insurance companies make certain that your annuity is good for them.

Furthermore, the larger payout from an annuity comes from deductions from the principal. If you are taking out six percent per year, and the insurance company is taking four percent, your basis could be dropping by ten percent per year on a year that the stock market is flat, Years when the market tanks

are just as devastating to your annuity as it is to any other market investment. Your six percent payout in the next year will be on that lower principal.

If your advisor tries to push you into an annuity without ensuring that you understand every aspect, then you're working with the wrong advisor, because the first thing you need to know is that investment advisors collect a huge commission for selling you an annuity. Where do you suppose that money comes from? If you add up all the costs (and good luck figuring that out, annuity contracts are purposely complex) you might be paying four percent or more for an indexed annuity with guarantee riders. That means over the course of the investment, the insurance company will collect between 30 to 60 percent of the return on the investment. And you are NOT protected from downturns in the market! The guaranteed return ensures that your payout on the principal will be a specified percentage, but the market value of the principal can, and often does decline. Your "guaranteed" payout may (and probably will be) be on a declining basis.

So if your financial planner tries to get you to buy variable annuities or equity-indexed annuities, fire them on the spot. Seriously. They're just an insurance salesman in drag. A Single Premium Immediate Annuity makes some sense for some people because it's a pure insurance product that provides protection against outliving your savings. The amount it pays out is greater than the market interest for two reasons:

- You are drawing down the principal, not just living on interest.
- The insurance company is betting on you dying on schedule–which people do on average. The more annuities they sell, The safer the bet is.

I'm a little surprised that some enterprising insurance company hasn't created

a SPIA for people who smoke, drink to excess, are fat, and don't exercise. They could offer a very attractive payout rate.

You can consider a SPIA to be equivalent to having a defined benefit pension–because it is. It pays you, and perhaps a joint annuitant such as your spouse, an income for as long as you live. Beyond that there are no survivorship benefits, your heirs don't get anything. That's how the annuity is able to pay you better than market rate. There are other plans that offer some survivorship benefits, but they necessarily pay out less money to you. It probably makes more sense to establish a SPIA to cover your basic expenses use the rest of your investments for estate planning and supplemental income. The real litmus test for considering an annuity is the adequacy of your overall portfolio. If you can support yourself entirely from the interest and dividends of your portfolio, then a SPIA is probably not necessary. But if you think there's a good chance you'll outlive your portfolio, then it's worth considering.

A SPIA is a contract with an insurance company, and so there is some risk if the insurance carrier fails. You can mitigate the risk by spreading out your annuity with several carriers, and there is somewhat of a safety net in the form of state guaranty associations. But make sure you're picking the most stable companies for annuities. A lot can happen in thirty years.

The Bogleheads Guide to Retirement Planning has a succinct chart that's excellent for considering annuities. This is a lightly edited version.

In Favor	Against

Low retirement savings	High retirement savings
Not concerned with estate	Estate is important
Concerned about financial independence	Willing to accept help late in lif
Risk averse	Risk tolerant
Older age	Younger Age
Willing to irrevocably commit money	unwilling to lose control of mon
Willing to trust insurance company	Skeptical about insurance comp
Expect 10 year treasuries to fall	Expect 10 year treasuries to rise
Main concern: How much do I get per month	Main concern: How much do I g

Exchange Traded Funds, Index Funds, Actively Managed Funds

Critical Stuff: ETFs are an easy way to buy exactly the kind of index you want, anytime you want.

In This Chapter: The 20 Trillion dollar business. Arbitrage to Market Value. Expense Ratios and other bullshit.

A fine opportunity for fraud: Hollow ETFs

Index Fund vs. Exchange Traded Funds vs. Actively Managed Mutual Fund

This is confusing stuff, so read carefully. We're talking about three different kinds of funds that look similar in many ways and even sound similar in their naming. To differentiate which we are talking about we'll use the initials ETF for Exchange Traded Funds, IF for passively traded Index Mutual Funds, and AMF for Actively traded mutual fund.

An Index Fund (IF) is a special version of Mutual Fund which invests in the stocks that comprise a specified index. Since the composition of the Index Fund is fixed, there isn't much for a manager to do, so the fees are low. A stock market index is simply a list of stocks related in some manner. In investment terms, it means a fund that holds all the stocks that form a specific market with the percentage of each stock held being determined by some formula based on

a ranking value. You could form an index of the 50 largest companies in the US, and then decide on how the value of those companies should be represented in the ordering and overall value reported for the index. You could base the value on market capitalization, or revenue, some balance sheet number, or any arbitrary measure. For example, the Standard & Poor 500 index represents the value of 500 major company stocks in various market sectors in a basket of stocks weighted by market capitalization. Indexes can be based on any characteristic, such as market sectors, market size, asset type, commodities and real estate and can be weighted by any factor.

When you buy an Index Fund (IF) you actually own shares that comprise the index. An ETF is also an index of shares, but they are created and held differently, and when you own an ETF you don't actually own the shares that comprise the index. The fundamental difference between an ETF and an Index mutual fund (IF) is in how they are traded and priced. ETFs are considered more flexible and more convenient than IFs and they can be purchased whenever the market is open and in smaller increments–generally whatever a single ETF share costs. ETF shares are priced in the market, exactly like stocks whereas IFs are priced only after market closings based on the current value of the stocks in the fund. ETFs are priced and traded continuously throughout the trading day exactly like common stock. Their value is also based on the underlying set of defined assets but the price is more market driven. Theoretically, the arbitrage opportunities that arise whenever the price for the ETF deviates from the price of the assets that make it up tend to keep the price of any ETF tightly in line with the securities that form it. For example, if an ETF price is lower than the basket of stocks the ETF represents, an authorized trader (not you) can buy the ETF at that discounted price and then sell the component stocks for a higher price. If the ETF is trading at a price

higher than the stocks it is made up of, the traders would sell it off, driving the price down. Don't misunderstand this kind of trading. The normal run of ETF shareholders own shares in the fund, they don't have a direct claim on the shares that comprise the fund.

Shares making up an IFs are generally bought and sold only through the company that manages the fund, with the shares the fund holds in the hands of a custodian. When a shareholder of the fund wants to redeem their IF shares, the manager sells the appropriate number of component shares and pays the owner the proceeds. When a shareholder buys shares the manager buys the appropriate stocks to match the index structure. This means the basis for capital gains taxes in the fund is complex and a portion of all the capital gains from any sale of assets in the fund is passed through to fundholders. While this appears to be a major flaw, for most IFs it's not much of an issue. The funds tend to be "buy and hold", and the massive size of the more popular IFs makes trading a fractional issue.

Most ETFs use a similar custodial structure but the supply of ETF shares are regulated through a creation/redemption process, where authorized parties create shares by assembling the portfolio of assets and exchanging these with the fund for ETF shares. For redemptions, these traders provide ETF shares to the fund and receive assets consisting of the underlying portfolio. These are also generally the traders that can arbitrage improperly priced ETFs.

Unlike an AMF mutual fund that has an active manager who generally divulges their investment intent for the fund but is expected to trade more or less freely in an attempt to increase performance over the market, an ETF generally follows a rigid design. For example, they might replicate an index benchmark closely. This ensures diversification and removes the emotion and risk of

market timing decisions. As the ETF expands with more people buying it, the concentrations of investments stays the same, replicating the benchmark with simply more shares of each asset, whereas an actively managed fund often strays from the original intent when the number of investors increases.

The fixed design makes the ETF simple to manage which should result in much lower expense ratios. Expense ratio is a mumblemouth way of saying the fee the administrator collects as a percentage of the fund. ETFs have another pricing advantage–since they are bought and sold during normal exchange hours just like any stock, and the volumes of transaction of the most popular ETFs are huge, they are fairly liquid. For that reason, most have very low costs to transact and the transaction times are very short (the span between offer and bid is short). Some companies like Vanguard charge no transaction fee for ETFs and execute trades almost instantaneously. Most mutual funds, including IFs charge a substantial fee for transactions and trade once a day, which can make for a substantial difference in the asked and offered price.

The benchmarks generally change infrequently and slowly, so passive index-tracking ETFs have a low turnover rate. This can be a big tax advantage over AMF mutual funds that are being traded to suit the managers fancy without regard to your tax situation.

ETFs provide the same fees and terms to all investor. And whether you are buying ETFs yourself, buying through a fee-only advisor or using a Robo you are not paying for all the sales commissions and fees that fee-based advisors collect, and you are not exposed to the sales pressure that the conflict of interest with fee-based advisors inevitably engenders. AMF Mutual funds can be sold directly to you by companies like Vanguard, but most AMF sales come through some kind of sales channel. Each layer of the channel adds fees, and

they can be hard to ferret out–all you know is that the "performance" is a little disappointing. That's because you're dragging all those fees along. You can be paying fees as front and/or back loaded costs or back-channel commissions to your advisor, as well as paying the advisor.

If you've traded mutual funds directly you've probably experienced some capital gains that get distributed to you at year-end even when you haven't sold anything. That's because when a shareholder of a mutual fund liquidates their holding the fund's administrator sells securities to get cash needed for the redemption–the cost basis for AMF funds is so complex that the accepted solution is to distribute capital gains among all investors. Additionally, in AMFs the churn of stock positions held can be very high, and each position sold can create some short-term capital gains if the holding period is less than a year. These sales generate capital gains that are distributed to all shareholders in the fund. If you are holding mutual funds for the long-term you are paying capital gains for the shorter term investors. If a shareholder in an ETF liquidates they sell their shares to another investor and generate a capital gain or loss only for the seller. The capital gains in the creation/redemption process do not pass through to the shareholders.

ETF's also have a very low expense ratio, about 10-15 points (.10 to .15%) for bond ETFs and 15-30 points for stock ETFs. That varies depending on the fund and who is selling it. By comparison, conventional IFs cost a few more points, typically 15-25 points for bond funds and 18-35 points for stock funds. That's really not much of a difference given that AMF expense ratios are more than 1 percent (100 points) on average.

With all these benefits its no surprise that ETFs have grown rapidly over the last decade. But so have IFs, which share many of the same benefits. It's really

the actively traded AMF mutual funds that are getting clobbered by the growth of these investment types–as they should be. With any investment, you need to look at the structure, asset classes, expense ratio, and overall cost of ownership of any ETF or Index Mutual Fund. With some of the more exotic ETFs there are also trading costs, deviations from the benchmark, and basic management issues like errors in tracking to pay attention to. With many companies entering the field and all of them trying to differentiate themselves (big ETFs are more attractive than small ones, so no little upstart ETF that looks just like an established, big ETF is going to get very far), the slate of ETFs is getting more difficult to navigate. It's reasonable to focus on the largest and most established companies, or to consider a robo investor system for acquiring and holding ETFs. Leave the exotica for the financial hobbyists and experts.

If you don't choose to heed that advice, be careful. ETFs have become a speculation tool for some people. And ETFs can be surprisingly hollow without anyone going to jail. The assets that back them are pledged–they don't sit in a vault. The entities that pledge the shares that back an ETF may choose not to exchange the shares for ETFs when a lot of people are trying to exit. They can and have become illiquid, which generally forces them to close, and when ETFs close it can be a long time before you get a settlement of the funds due to you. There is also a lot of securities lending going on under the covers of almost all ETFs, a lot of the profit of ETFs probably comes from this. I say probably because information about it is hard to come by. If the company managing the ETF decides to keep the fees from lending securities, the loan represents an uncompensated risk for the shareholders. The practices of the ETF companies for sharing lending fees vary greatly. Vanguard gives investors 100% of the profits from lending. At the other end of the scale iShares won't discuss and

does not disclose how it handles lending fees. If they won't disclose, then it's a safe assumption that they keep them. For all these kind of reasons, it's not rare to see an ETF trading at some discount from the value of the assets that comprise it, even though the underlying theory of ETFs is that arbitrage would eliminate that gap. No one can arbitrage an ETF with a pledge entity that isn't exchanging shares.

There's an online magazine called ETF report (ETF.com) that covers ETFs in detail. Reading it will probably scare the crap out of you, but the focus of publications like this is exotica and interesting stories. A solid ETF humming along on track is not interesting. For most investors, ETFs represent a simple and effective way to invest in a broad swath of a market segment. The potential volatility and risk of ETFs is real but rare. There's more than 20 trillion dollars invested in ETFs. As Mom used to say, "just because Johnny does it doesn't make it OK for you." But 20 trillion? Jeez.

All the same, I tend to focus more on Vanguard index based funds and DFA funds. Since they consist of the actual shares of the stocks the index the fund represents, they never trade at a discount to the net asset value, and therefore there's no speculative aspect–they can't effectively be shorted. The "slowness" of their trading makes them unpopular for speculation–they are priced, bought and sold at market close, which of course is the only time the shares that make them up can be priced.

There's very little excitement with Index funds, which is fine with me. I get my excitement surfing, stand up paddling and mountain biking, not in retirement investment.

Making A Change

The day to fire your financial advisor is the first day you think you should

If you've decided to fire your financial advisor and move your money into a self-managed account or a robo advisor account you need to consider the tax implications of the move. Changing one advisor for another is a lot simpler–they will handle all the details and (hopefully) give you advice on the tax implications and other costs. A fee-only advisor might do this for you, but may charge you an hourly rate for all the work. But it's a one-time fee. If you change to another fee-only advisor there shouldn't be any transition issue. You just change the name of the advisor on the custodial accounts. It's not all that difficult, but there are a few critical steps.

Managing these transitions are not all that difficult, but there are a few critical steps.

1. Decide where your investment is going

Let's say you've decided to switch eighty percent of your funds to vanguard, and twenty percent to Betterment. Contact the firms you intend to use and tell them what you're planning. You can open an account and resolve any technical issues. Depending on your investment level the new firms may offer concierge service to help with your decisions about fund transfers. They can inform you of any issues with your existing funds.

2. Inventory your funds

Once you choose the firm you'll work with you should provide them with your most recent brokerage statement. They can tell you what investments can transfer "in kind" which will eliminate any tax consequence. They can also give you clear information about funds that cannot be directly transferred. Some proprietary funds will have to be sold to move them. Some assets may be illiquid products or have sales penalties. Annuities often have penalties for early sale. It may make sense to hold them until the penalty expires but you need to do a careful calculation to decide this–the insurance company that provides your annuity will have their bases covered–the additional amount you'll pay in fees over the holding time will look a lot like the surrender costs. There are low-cost annuities that don't suck you dry like the variable annuities do. If you have a substantial gain in the annuity you hold, then you'll probably pay ordinary income tax on the gain. That hurts. If you transfer "in kind" to a low-cost annuity you can avoid that, but the underlying question is "do you really need an annuity" and the answer in many cases is no. If you choose to retain your current annuity until the surrender charge expires, consider canceling the guaranteed income rider and any other bells and whistles. This can be a substantial expense with little benefit. It's almost always a separate and optional charge that you probably didn't know you could avoid. A typical cost for the rider for a $1million annuity might be $10,000 per year. There may be some useful tax strategies to consider, and your new firm might make suggestions, but run them by your tax advisor. It's no fun talking to the IRS about some clever scheme that you never really understood.

Transfer "**in kind**" means that you transfer your specific investments over to the new company without selling and buying which triggers a capital gain or

loss. You can only do an "**in kind**" transfer if the investment you own is available at both financial institutions. Most stocks and many ETFs would be available at all brokerages. The people at your new home handling the transfer can give you specific advice on the best way to manage the transfer and minimize tax consequences

The benefits for an in-kind transfer are:

- No tax consequences.
- No trades.
- No sale/purchase fees.

3. Terminate your advisor in writing

If you've done an analysis of what your investment advisor was costing you, then by now you are probably hating them a bit. Don't let that color anything you say or do. But you don't want to terminate your advisor over the phone in any case. Do it in writing by registered letter and save a copy of the letter. Make your letter short and civil. There's a good chance you will need to contact them in the future for documents or information. Any financial advisor is used to being fired–it happens all the time, but they won't be helpful if you've abused them. Remember, they didn't force you to do business with them–you chose to. Even if they screwed you, you probably signed every contract that they used to abuse your money. It's not their fault you didn't read and understand it. Well… …okay, it is, they abused your trust, but be pragmatic.

4. Terminate trading

If you are going to move on this process quickly, you should terminate your advisor's permission to trade on your account. Don't drag your heels, especially if you hold a lot if individual stocks or high risk funds. You might want to wait until you are nearly ready to pull the trigger to terminate your advisor's trading right, but if you have reason not to trust them. terminate now.

5. Talk to your tax advisor

Once your strategy for transfer is in place, talk to your tax advisor about what you plan to do. If you don't have an accountant, get one, if only to have them look over this transfer. A relationship with a good CPA is an important thing to have. More important in my opinion than having access to a lawyer and infinitely more valuable than most investment advisors. Any assets held in a taxable account that cannot be transferred in-kind should be examined for losses to offset capital gains. You probably have a mixture of gains and losses, so a careful examination of what accounts to sell that have losses to be harvested can minimize taxes.

6. Be careful with IRAs and 401Ks

Non-taxable assets should be handled as a trustee-to-trustee transfer. If the transfer is screwed up you can incur early withdrawal and tax penalties that will take a HUGE bite out of the account. On the plus side you can move the funds around as you like–there's no tax involved as long as everything stays in tax-free accounts.

There's always some worry and trauma associated with making big changes, but if you proceed with caution and good advice, this will probably be the best thing that ever happened to your retirement.

Tax Loss Harvesting and Turnover Rates

Anyone that has investment of any kind realizes that you are taxed on investments in several ways. In this chapter we're going to focus on stocks. We'll cover taxes in general in a separate section later in the book. Taxes are a vital element in having a successful retirement plan.

Dividends: Stock dividends are taxed in one of two ways. Dividends from an unqualified stock are taxed as ordinary income, meaning you owe a tax on the dividend based on your income tax rate. Qualified stocks are taxed at the capital gains rate, which is almost always lower. Your dividend is qualified if you hold your stock investment for more than 60 days during the 121-day period that begins 60 days prior to the ex-dividend date — which is the day after a corporation's board declares a dividend payment to shareholders.

Gain: Any increase in the value of a stock may be taxed as capital gain when you sell the stock. If you've held an investment for less than a year you pay short term capital gains on it, which is usually 10 to 20 percent more. People in the lowest tax brackets usually don't have to pay **any** tax on long-term capital gains, so the difference between short and long term can be a tax at your highest rate or zero tax.

A high turnover rate for a mutual fund means many of the stocks within that fund will be bought and sold within the period of short term capital gains. The fund manager certainly doesn't take your specific tax situation into account when they are deciding to buy or sell, but their decisions can have a big effect on your taxes. Of course this is moot in non-taxable savings accounts like IRAs

and 401K, though the overall change in the value of the funds will result in taxes when the money is withdrawn. If your funds have done well, that's a tax you shouldn't mind paying since your investments have grown tax-free over the period they were held.

In taxable accounts, the turnover results in a yearly tax bill for gains that you may not have benefitted from. One more good reason to use tax-efficient funds like index funds, where turnover is generally low. Each mutual fund you own delivers a yearly distribution of gains, and you are required to pay taxes on those distributions whether they are paid in cash or reinvested in the fund. The distributions are often characterized as a benefit to the shareholder, but since the value of the shares declines more or less in step with the distributions, the taxes on the distribution tends to dilute your ownership –even though you might have more shares after reinvestment. If you take your money out of one mutual fund and move it to another it may not feel like you received your money back and then reinvested it, but Uncle Sam treats it like any other sales and purchase, so you must report and pay taxes on any gains.

In taxable accounts, you can use the losses to lower your tax bill. The simple approach to this is that when you cash out of a set of funds the capital losses of one may offset some or all capital gains of another. There's a more complex strategy for managing your investments without cashing out called tax loss harvesting.

Here's how tax loss harvesting works. You've invested $20,000 in a fund in a taxable account but the fund sucked and it's now worth $10,000. You have faith for some reason that the fund will recover, so you want to keep holding it. But you want to "harvest" those losses, so you sell the fund, and then buy

it back 31 days later to avoid the wash sale rule. Or you'd buy a similar investment that skirted the rule. You now have a $10,000 capital loss that you can use to offset a capital gain.

Understand that in the long term you haven't gained anything. Your basis in the fund is now $10,000 less. If it returns to $20,000 and you sell it, you owe capital gains on $10,000. Do it all wrong and that could be short-term capital gains, which means you will pay more taxes. Do it right and your tax bracket may have changed. If it's downward, then you pay less in taxes, but it could be upward, which means you pay more. In any case, you don't avoid the capital gains from Tax Loss Harvesting unless you die, in which case it may be excluded because of a stepped-up basis. A weird element of estate taxation, but what else is new.

So why do it? First, you can consider it an interest-free loan from Uncle Sam. The loss can be offset against any other capital gain, and you can even use $3,000 of it ($1500 is married filing separately) to offset ordinary income each year. The remainder is carried forward into subsequent years. There's more to this–if you're paying AMT (Alternative Minimum Tax) you won't get a deduction, but we'll cover that later.

It's also more likely that the capital gains resulting from the lower basis will come due some time in the future when your income is proportionally less and your tax bracket will be lower. Assuming the tax code remains the way it currently is (not a safe assumption) you will pay at a lower rate.

The most important rule in implementing tax loss harvesting is not to let the tail wag the dog. You shouldn't be making investment choices on the basis of tax loss harvesting, rather, you should look for opportunities to optimize tax strategy when you are making prudent changes.

Budgeting

You have to live within your means to stay retired. We'll show you how to do the numbers. The rest is up to you, but understand this: Of all things that can affect your retirement–taxes, inflation, medicare changes, Social Security changes, etc.–the thing that gives you the most control is your budget. The surprising thing is that a budget makes your retired life better. You'll reduce stress, and you can focus on funding things you want to do.

Gather Data

- 12 months worth of bank account statements
- 12 months worth of credit card statements
- Current income
- Your tax returns for the last two years

Download a budget spreadsheet. Here's one I like: Budget Spreadsheet

Now add in these elements:

Expenses

Essentials: Food, mortgage payments, transportation, health care, car and home repairs. Essential isn't the same as a fixed expense. Food is an essential,

but it's variable–you can eat beans, oatmeal and cornbread, or you can eat steak.

Non-essential: Cable TV, subscriptions, cell phone, subscriptions, memberships–any monthly expense you could elect to eliminate, whether you want to not.
Fixed: Property taxes, insurance premiums, auto registration, etc. Many fixed expenses are yearly expenditures. Convert them to monthly by dividing by 12. You should also consider the eventual replacement of your vehicles. Cars and trucks are pretty expensive these days. If you need a replacement in five years you can take the expected cost and divide by 60 to add it to your budget on a monthly basis, or divide by 5 and put it in a specific month. Most people find the monthly expense is something they are less likely to ignore if they're doing budget planning.

Medical: Prepare yourself for a shocker. Until you qualify for Medicare at 65, your healthcare premiums are going to be expensive. Even after medicare kicks in and you add a supplemental plan it's likely to be in the neighborhood of $1000 per month per person and rising. Do some research now, so you can add a reasonable estimate to your plan. Include dental and any other special medical costs you expect.

Family: Even if your kids didn't fail to launch, you are probably the easiest source of loans. Loans to kids tend to stay unpaid. You should plan for some family expense even if it's counter to your philosophy. If your kids can't pay for their medical insurance, covering that could be a defensive move that saves your retirement. Are you going to say "no" if their life is at stake?

The good stuff: Travel, hobbies, restaurants, etc.

Now just subtract expense from income. If your remainder is negative, you have work to do. If it's positive, you can reallocate some of it or just choose to save it. If you are retired, you can treat 3 percent of your savings per year as income. If your investment allocations are appropriate, that should almost guarantee you won't run out of money before you kaack.

One worthwhile exercise is to examine the percentage of your budget that is fixed. Add those expenses together and divide by your total expenses to see the percentage of fixed expenses. Remember that fixed doesn't mean perpetual. If your percentage feels high it could be the motivation you need to downsize your house, get rid of a car, review your insurance. A good retirement is a flexible retirement.

Dealing With A Downturn

The day after any Wall Street meltdown none of us will know whether today is a spectacular buying opportunity or the beginning of a bloodbath that will push our retirements out until we are 85. The most important thing is to remain calm and think. Panicked investors sell when the market is down and buy back in after it recovers. Don't do that. Here are a few things to consider to ease the pain.

If your holdings are all in index funds, then there isn't much you need to do. Buy and hold is the strategy there. You might want to sell some of your bond funds and buy more of your index funds to rebalance your asset allocations. That strategy is the illegitimate child of dollar cost averaging and buy low, sell high. Selling bonds to buy stocks in a down market takes fortitude, but it's a lot better than doing the same thing post-recovery.

If you still own actively managed mutual funds or individual stocks, you could use a tax-balancing approach to exit both the high cost and the losing funds, or just do some tax loss harvesting to minimize future taxes. If you've been waiting for an opportunity to move some mutual funds that performed well in the past, but that are eating you up with high management fees, now may be your time. Sell losing shares of stocks or mutual funds and sell the most expensive mutual funds using the loss to offset funds that held their value. Then use the money to buy your preferred index funds with a minimal or zero tax effect.

If you are just harvesting loss, note that you have to wait a month to rebuy shares of a security you're selling for a loss, and you can't sell securities you've

held less than a month to take a loss. And of course, it makes no sense to sell shares in your tax-protected retirement account–no tax losses to harvest. You can use your losses to offset any investment gains you have at the end of the year and up to $3,000 in ordinary income. If you lost a bundle, you can carry forward unused losses too.

If you're sitting on some cash you intended to invest, now is the time to get it working–unless you think you're going to need it within two years. Timing the market is a bad bet, but after a disaster, it doesn't take deep insight or genius to recognize indexes that you feel should recover quickly, ones that pulled down from emotion, not fundamental challenges. The market will probably bounce around a while, and you won't likely find the bottom. Watching the value of the cash you just invested dwindle is going to take some fortitude, but be brave. You just bought in at a deep discount. The market will correct. Don't get goofy and buy individual stocks. Some companies may not recover. Indexes almost certainly will.

Keep perspective. Don't make radical moves. That's about it.

What's Insured And What Isn't

It's nice to know that your savings are protected in some way. Most people know about FDIC insurance for savings banks, but there are other insurance forms that are important as well.

FDIC: The FDIC covers account holders at an insured bank (all state and nationally chartered banks must have FDIC insurance) for $250,000 in individual accounts at one bank. If you have a savings account for 200K, a 50K CD and 50K in your checking, then only 250K of that 300K total is covered. Currently, joint accounts are covered separately, and each co-owner is covered for 250K, so you can have a joint account with your wife that is insured up to $500K, a 250K individual, your wife can have a 250K account and the whole $1 million is covered. Odd, but true. Deposits in separate branches of an insured bank are not separately insured. Things change, including FDIC insurace. Find out what the current rules are and partition your savings accounts accordingly.

Certain kinds of accounts in the same bank can be covered. These include: Some retirement savings accounts, trust accounts–both revocable and irrevocable, employee benefit plan accounts, and corporate, partnership, and unincorporated association accounts. All of these categories have specific requirements that you should discuss with your banker. And of course any stock or bond elements of retirement accounts are not covered by FDIC, only the cash elements.

If you have more cash savings than that you might want to split it up between

several banks. A bit of a pain, but a lot less pain than losing the uninsured portion in a bank failure. In the event your bank fails and you have an uninsured excess the FDIC gives you a check for your insured amount and a Receiver's Certificate for the balance in the account. When the assets of the bank are liquidated you will receive a prorated portion of the liquidation amount. Don't expect much, the FDIC gets first dibs.

It's worthwhile to note that they FDIC covers ONLY bank failure. Fraud, hacking, and other forms of theft or loss are not covered. Banks themselves cover your account against fraud. Many banks purchase insurance against fraud or establish a reserve to cover losses. If you suffer a fraudulent loss you should report it to your bank as quickly as possible so it can be investigated. Banks are required to give customers provisional credit for losses in ten days, but most give full credit almost immediately.

For more information on FDIC coverage go to www.fdic.gov or google other sources to get explanations not couched in bureaucrat-ese.

Insurance Company Failure

Annuities are insurance, and the companies that issue them are subject to failure. That's rare, but it happens. Usually when it does another insurance company will take over the insolvent company and the annuity won't change, but if not, the state commissioner of insurance acts as a trustee. If an insurance company is placed under state control there may be temporary restrictions placed on the kind of transactions you can execute regarding your policy–for

example you may not be permitted to withdraw completely from the annuity while it is held insolvent.

States also require annuities to be covered by an insurance pool. The amount of coverage changes state-to-state and coverage you enjoyed living in one state may not continue when you move to another. Again, these rules vary, so if you have an annuity and you're contemplating a move, make sure you know what your coverage result will be. There's a very useful document on Annuity protection here: http://www.nafa.com/wp/wp-content/uploads/2012/07/State-Guaranty-Fund-Directory.pdf It's supposed to be just for agents, but we won't tell if you don't.

It's always wise to spread your annuities among multiple companies, and the amount of coverage available to you in your state is probably the best way to decide how many to use.

Securities and Cash held by Brokers

The cash and securities held at a brokerage firm are protected by Securities Investor Protection Corporation (SIPC). Some investments like commodity futures contracts and any unregistered securities or alternative investments are likely not covered. Customers of a brokerage that goes broke get back all stocks and bonds that registered in their name. Claims for other assets such as cash are generally covered up to $500,000 per customer, with a maximum of $100,000 for cash claims. In most cases after a brokerage failure your shares are quickly transferred to another broker and you have normal access. Your cash claims may take longer. If the broker is liquidated and kept crappy records the court appointed trustee has to sort everything out, and that could take months. If the principals of the firm engaged in fraud, the recovery could take

even longer. Still, SIPC coverage gives you some additional assurance that your assets are safe. But ultimately the safety of your investments depends on your choice of broker. I don't screw around with anyone b-team, no matter how good their service might be. You don't really get to look under the hood of these companies. Choose your custodian wisely.

Even if your broker is one of the megalith firms you should maintain your own records of the assets you own. Online access is not enough, you need backup data, either screen-grabbed and stored on your own equipment and backup or paper in your safe deposit box. You need to be prepared to show trade confirmations for all assets. With a failed brokerage, especially in the event of fraud, there may be trades that were executed without your consent.

For more information on the SIPC, go to www.sipc.org. or google SIPC.

Critical Stuff: If you do a great job of saving for retirement but ignore taxes, you'll be screwed.

In This Chapter: Tax code distilled. AMT-gotcha. Uncle Sugar wants it all. If you think it's income, it's income.

Don't expect logic or reason in the tax code

Taxes are one of the easiest ways to screw up your retirement saving. The market goes up and down–the changes can help or hurt, but taxes just hurt.

This chapter is heavy on information and very light on advice because you almost certainly need a tax pro to help you in the early stages of tax planning. The only way I can help you here is to steer you to the right questions to ask. But that's useful. If you're going to have a conversation with your pro that results in optimal solutions for yourself, you have to know enough to ask the right questions, and refine the answers into strategy. Your tax pro needs a full listing of every source of payment or income you receive to be able to give you advice on the timing of decisions like when to start social security, what the ramifications of a part-time job might be, and how your distributions from tax-free accounts and annuities should be managed.

The tax code is an impenetrable mess, but if you want specific information you should start with the IRS and the tax authority of the state you reside in. They have some decent publications that convert bureaucratic doublespeak

into something resembling English. It's not Hemingway, but you can get what you need from it–probably.

Publication 525 from the IRS lists everything that is taxable as income–you can access it at www.irs.gov Of course since it's the IRS, it's endless and arcane, but if you're wondering if an income source is taxable, you'll find the answer there. Below is a basic list. Don't consider this to be authoritative, I cribbed it from a number of tax preparer sources. HR Block has good information, well presented and translated into English from govspeak. Use the list below to start your conversation or your own research. There are lots of exceptions and loopholes, especially in service benefits, inheritances, and investment instruments like municipal bonds.
Ordinary income: This means wages, unqualified dividends, distributions from your IRA pension fund, or annuities, rent from real estate, interest from bank accounts or money market funds, and all the other stuff in Pub 525.

Interest from municipal bonds is generally tax exempt–both state and federal. The exception is certain "private purpose" bonds, such as those used to build sports stadiums. Many investors today buy bond funds instead of individual bonds to reduce the risk and reduce the fees from limited diversification of purchasing individual bonds. You don't lose out on the tax-free status by purchasing these funds, the company that manages the fund will break out the tax exempt interest from the non-exempt on a quarterly basis.

Wages, salaries, and tips — anything that shows up on a W-2, including commissions, bonuses, vacation pay, sick pay and severance pay.

Any money you make on the side should be reported as income, and if

you make more than $400 on the side you must pay Social Security and Medicare taxes.

Alimony–if you get it, it's fully taxable. If you pay it you can deduct it even if you don't itemize deductions. Child support is not taxable or deductible.

Unemployment compensation benefits are fully taxable.

Pension and annuity payments are fully taxed with some exceptions. After-tax contributions to an annuity are tax-free when withdrawn.

Awards: Fair market value of awards such as all-expenses-paid trip are taxable as income.

Barter: Fair market value of property or services you receive or provide in exchange for work done is taxable income.

Disability payments: If your employer paid the premiums for your disability insurance, disability payments you receive are usually fully taxable. If you paid the premiums it's tax-free. Veterans' disability benefits and workers' comp are tax-free.

Any Gambling or prize winnings

Social Security — Depending upon your income, Social Security benefits might be entirely tax-free or partly taxable. Ex: If your income is more than $25,000 — or $32,000 if married filing jointly — up to 85% of your Social Security benefits is taxable.

Dividends

Qualified Dividends are subject to a lower tax than ordinary income. Qualified means you have held the stock for more than 60 days in the quarter. Well, actually, it's weirder than that. You have to hold it for 60 days of the 121 day period that begins 60 days before the dividend date. Okay, who the hell came up with that? If your holdings are in mutual funds, that holding period is subject to the fund managers whims–not yours. So the time that you choose to buy a mutual fund is important. If you buy a mutual fund just before the dividend distribution date you are "buying the dividend"–which is taxable.

Here's how buying the dividend works: Imagine you buy 100 shares FREDCOM at $20 each, for a total of $2,000. Tomorrow FREDCOM distributes $2 a share. The market knows this–FREDCOM shares are $20 instead of $18 because FREDCOM is going to distribute two bucks. They send you $2 per share, or $200, and your $20 shares are now worth $18 (probably). That $200 distribution counts as taxable income. You haven't participated in the growth of FREDCOM, you've simply spent two bucks to buy two bucks, and it's taxable. Don't do that.

Capital Gains

Capital gains are the gain (or loss) in value of any asset you own. The asset sale is categorized as a short or long-term capital gain, depending on how long you have held the asset. Short term is one year or less and, in general, the short-term tax rate is the same as the rate for ordinary income. The long-term rate is currently 5 percent if your tax bracket is less than 25 percent and 15 percent if it is higher, though the long-term capital gains tax on some items like coins, precious metals, and jewelry is 28 percent. Something gold bugs should consider in their plans for such investments.

A capital gain or loss is calculated by subtracting the basis from the sale price. Basis is the purchase price plus any costs associated with the purchase as well as any costs for improvement of the asset. So for stocks and bonds the purchase price plus professional fees associated with the purchase is the basis. Unique to stocks and bonds is the notion of a wash sale, where you sell a stock or bond at a loss and then purchase the same or a very similar asset within 30 days. The loss may be disallowed by the IRS as a deduction from ordinary income or as an offset from a capital gain from another asset, but any amount thus disallowed is added to the cost basis of the new asset.

The tax you owe is the net of short-term gains and losses plus the net of long-term gains and losses. If you have a net loss you can deduct that dollar for dollar from your ordinary income up to $3000 ($1500 if you are married filing separately). Any capital losses beyond that you can carry forward to subsequent years to either offset capital gains or deduct from ordinary income. If you die before the capital loss is all consumed it can be inherited by your spouse, but it's not transferrable to any other heir.

Yeah, I know, I worked hard to make that more understandable, but the IRS guys are geniuses at making stuff incomprehensible.

Capital gains also apply to the sale of any other asset, such as your home, cars, vacation homes, land–any asset. Part of simplifying your life in retirement and an important part of your nest egg may be the sale of these kinds of assets. Each asset class has some special aspects that may adjust the basis or limit the tax. Professional advice is a good idea for these complexities, but here's a basic idea of what to look for:

Home Sale The price you paid for the home plus any improvements you made

with a useful life of more than a year, plus assessment for local improvements (like sewer or city water) plus any amount you spent to recover from a casualty, plus closing costs and professional fees but not mortgage fees forms the basis for computing gains. So it's very important to keep track of all these costs. When you sell your primary home you can exclude $500,000 of the gain ($250,000 if single or filing separately) if you meet the requirements for ownership and residence. The rules are a little complex, but currently, you can take this exclusion every time you sell a home as long as you have lived in it as your main home for more than two years. You can't have taken the exclusion for another home in that two years, so the timing of the transactions is important. The exclusion forms one of the reasons for "house flipping", the practice of selling a home, buying another in need of repair and upgrade, spending two or more years improving its value and then selling it and repeating the process. It's also a reasonable tactic to sell or rent your main residence and move to a vacation home you own, converting it to your main residence for at least two years before you sell it. As usual, the relevant tax code is complex, there are provisions for a reduced exclusion for homes where you don't meet all the ownership and residence rules. You can figure that out by reading the tax code in IRS publication 17, or ask a professional tax advisor (but double-check the answer. They aren't god-like, they make mistakes).

Alternative Assets Art, coins, stamps, collectibles, precious metals, and other similar assets are currently taxed at a long-term rate of 28 percent. If a fund you own invests in these kinds of assets you will pay that 28 percent maximum capital gain when you sell the fund. When the fund sells some of those assets that portion of the gain will be taxed at 28 percent. There are other funds that incur higher tax rates as a result of the kinds of investments they make.

For example, funds that invest in derivatives may have some part of their gain taxed as ordinary income.

Social Security

Your tax bracket is very important when collecting social security. The reason that many people who collect Social Security find it unprofitable to work is that both the percentage of their Social Security income that is taxable increases, and their tax bracket increases–it's a double whammy. If you are in a low tax bracket, none of your social security is taxable, but if you have substantial income beyond social security then as much as 85 percent of your Social Security may be taxed at your maximum tax rate. It can be worthwhile to pay close attention to what you do to pay for your living expenses just to keep out of the double-whammy zone. Ultimately retirement is about the quality of life, not the quantity of money, so if you're doing something that makes you happy but it screws up your social security , then rock on–as long as you fully understand the consequences.

There's a worthwhile calculator here. You might find it difficult to get accurate numbers for the data required, but you can fudge it a bit. The bad news is that it's very easy to get to the 85 percent taxable social security level. the good news is that if you're taxed that much, your lifestyle probably won't be altered by the tax.

Alternative Minimum Tax

The AMT can be a terrible sinkhole for people in specific income classes. The AMT trigger is a set of calculations that determines the minimum tax that a person with your income should pay. If you fail that test an AMT tax is added

to your normal tax amount. The AMT also kills itemized deductions and can turn unexercised options into tax liabilities. The full ramifications are beyond my knowledge though not my experience, I have been stuck paying AMT many times. This is definitely a place for professional advice.

State Taxes

Each of the 50 states plus the US territories has their own tax code. The total tax burden from income tax, sales tax, property tax, and other assessments is one of the primary issues you should consider if you are considering relocating for your retirement. For example, I have my primary home in Oregon and a secondary residence in Maui. Both are delightful places, but I earn the title of tax moron for selecting them for retirement.

HEALTH AND FITNESS

The biggest long term threat to your successful retirement are health issues–yours and your loved ones. You may well consider Medicare to be your ultimate backstop for healthcare issue, and it should be, but Medicare is becoming steadily more expensive and covering less. Even if medical expenses don't eat up your savings, most people's idea of retirement is not being sick and infirm for the next thirty years. So we'll cover medical insurance issues, but we'll also look at ways to stay fit and vital. Your health may not be completely in your control, but most americans could do a much better job of maintaining their bodies and helping the people they care about (and could be devastated financially by!) to adopt healthy practices as well. It's difficult to change your own behavior, much less someone else's, but that doesn't mean you shouldn't try.

I'm somewhat of a success story for turning around my fitness level. When I retired I was pushing 260 pounds, with a 44 waist, and moderate muscle. Now I'm 235 (still too fat) with a 38 waist and a lot of muscle. I haven't been in a gym in years, and everything I do is fun for me. I'll tell you all about it.

Exercise in Retirement

Critical Stuff: Exercise is critical to health and quality of life.

In This Chapter: Why you don't lose weight by walking. Bowling won't do it either. Your excuses are ridiculous.

It's too late, I'm old and fat. What bullshit.

For many people, retirement is a sudden step: You're offered an early retirement option, or your job is eliminated, you need to take care of a spouse or family member. Whatever the cause, your departure from daily working life can leave you disoriented and depressed. Looking at your financial situation might leave you staring at the ceiling at night. And you suddenly have an extra eight to ten hours to fill. It's the perfect time to start or step up your exercise program for one BIG reason: It's the most important step you can take to improve your quality of life.

Not only will regular exercise boost your energy, clear your mind, mitigate depression and help you manage injuries or illness, it also improves your confidence and slows the symptoms of aging. The very worst thing you can do is slow down. Even a useful and enjoyable sedentary pastime like reading books, or pursuing more education will be improved and enhanced with exercise. If you have a weight problem, an injury or disability, or a chronic disease like diabetes, or you're just feeling frail you'll have some special requirements to manage, but in all those cases it's even more important that you achieve and maintain the highest level of fitness that you can. All the

reasons you can come up with to slow down and take it easy are even better reasons to get off your ass and take charge of your body.

I'm in favor of fairly extreme sports and exercise, so I have to temper my comments while I write this. I'd tell you to get a stand up paddle board, windsurfing gear, a mountain bike, or a kayak and start pushing yourself hard. I share every excuse you probably have. I retired from a desk job. I was obese, had injured shoulders, a bad knee, back problems, and hated exercise. But I didn't want to look like Jabba the Hutt, so I pushed myself a little. The things I do are exercise, but they are also great fun.

One thing led to another and now I have an extremely active lifestyle after a long career of being deskbound. I didn't start out with the notion that I would become an athlete, my aims were simple–I didn't want to get fatter. People say you need to have a goal when you undertake an exercise regimen. I didn't really have one, the goals occurred to me as I progressed. So if you don't have some lofty goal for fitness, don't worry about it. Get started and the goals will come.

If you saw me on the street you wouldn't say "there goes a really fit guy". I'm 70, about 6'2 (and shrinking), and I weigh 235 pounds–about 21% body fat. I don't want to weigh that much. My performance in sports I like to do would be much better if my body fat was more like 9 or 10 percent,

I'm not overweight from lack of exercise, I believe I get more exercise in a typical day than perhaps 90 percent of the US population. Unfortunately, a lot of exercise doesn't necessarily translate into less weight, especially for older athletes. We don't maintain the kind of intensity that lets a bicycle racer

sit down and eat 5000 calories without gaining weight. According to pretty much everything I've read, and sports medicine doctors I've consulted, the most effective way for older athletes to lose weight is to eat and drink less.

I'm 70 as I write this, and I'm calling it "my breakout year". It's sort of a joke, but I really do think about it that way. My typical day starts at 5:00am with an hour or so of writing. At 7:00 I paddle a six-man outrigger canoe for an hour with the Hood river Outrigger Canoe Club. We paddle hard. Then I go to my shop and work on projects–I like to build things. If the wind comes up I do a downwind run on my SUP, a 7.7 mile paddle that takes me about 1 1/2 hours. Some days I do two. Come home and cook dinner. Write a little more and read. In bed by 9:00 and I sleep like a baby. I mix that up with mountain biking or road biking. I have a bad knee, so I don't hike or run, but biking doesn't hurt. My fitness watch routinely tells me I can eat 4000+ calories. If I did that I'd be buried in a piano box, but that's the amount of exercise I get–most every day.

I do that because it's fun, and I've gradually developed the fitness required to do it without pain or exhaustion, in fact, it feels good while I'm doing it and great when I'm done. The things you can do that keep your body fit will hurt for a while, but then they won't, and you simply start having fun. A lot more fun than sitting on your ass watching TV.

I have one mantra that helps me every time I feel like slowing down–*Don't Get On The Bus*. It comes from a day when I pulled into the overlook parking lot at Ho'okipa, a north shore surf spot on Maui. I had my surfboard on the car, and I was stopping to have a quick look to pick which of the spots I wanted to start with. While I was watching, a tour bus pulled in and people filed off. Most of the people shuffled off the bus, looking old, sick, and fat. One guy was still

reasonably vital and probably ten years younger than me. He walked over to where I was standing and said, “wow, that looks like fun, huh”.

I said, “It’s a lot of fun. I think I’m going to go out there at Lanes, the break at the far end, looks like the smallest crowd”.

He leaned back and said, “We’re too old for that.”

I didn’t have anything to say to that. He got back on the bus, I went down to Lanes and surfed for the rest of the day. Had a blast.

Don’t get on the bus.

I’ve heard all the excuses and made most of them myself. Here they are,

Why should I exercise, I don’t need muscles. I’m old anyway — Yes you are, but if you’d like to look and feel younger, then exercise is the way. It’s also the magic pill you’ve been looking for that staves off or mitigates heart disease, diabetes, various forms of cancer, obesity, and dementia. The list rolls on endlessly.

I need to rest to save my strength — Bullshit, you can’t save strength, you can only build it. Sitting around makes you sicker, older and fatter.

I could get hurt, I could pull a muscle or fall — regular exercise builds balance, increases the ability of your muscles to recover, improves endurance and decreases bone loss. You’ll have less chance of getting hurt and less chance of falling. Those helpless people pushing their medalert button because they broke a hip are the people who didn’t exercise.

It’s too late for me, I’m old and fat — Double bullshit. You’re never too old to

start. Take walks, build up to more. Extend what you do a little every day. I was a real porker when I retired. I'm still heavy, but I'm firm, fit, and have a lot of muscle.

If you're new to exercise, or you've become very out of shape, here's how to start safely:

See your doctor. Most will be thrilled that you are going to exercise but they can steer you away from activities that might cause more harm than good. If you are diabetic you'll need to adjust your insulin or other medication and time your meals to suit your activity level. My wife is type 1 diabetic, and she works out to the very challenging P90X program every day. She has to monitor her blood sugar more closely, but her insulin use is down substantially and her A1C test results are excellent. She was headed the wrong way before she started her exercise program. She's not interested in the adrenalin sports I do, so she takes her own path, and she looks young and fit.

Start at your own pace, but start. You have plenty of time. If it's been a while since you've been active there will be some repercussions to a new level of activity. You will have muscle soreness and fatigue. But building your program in steps that you can handle will put that behind you quickly. Soon you'll feel the good, warm kind of fatigue and soreness that comes from activity but dissipates quickly.

Stay motivated. Your goal for a fitness program should always be improved fitness, not appearance or weight. You won't see body changes in a short enough time to be motivated by it. If you're huffing and puffing after walking half a mile on level ground, then your goal is to walk a mile. Then two miles, then up a hill. If you track that progress in a journal it's easier to see a

progression that is strongly motivating. Fitness comes quickly, weight loss is slow. It might seem odd to speak of fitness as a goal. Fitness for what? It's a reasonable question, and the answer is–life.

Know when you're pushed too far. If you feel bad, or a joint hurts or is swelling, back off and rest. If an activity is making you short of breath (beyond simple exertion), you have chest pain, dizziness, or other unusual symptoms, call your doctor.

Use The Tools Available. There are lots of aids available to help you with many of the compromises of an aging body. I was getting brutal leg cramps frequently after hard exercise, and my legs and ankles swelled. My doctor said I had deep vein insufficiency and needed to wear compression socks. I tried them and the cramps and swelling were gone. For some time I was wearing either thigh high socks, which are a pain to keep up, or tights, which are grim to get on. Then I found some Italian-made knee-high socks that work perfectly and are relatively easy to don. Since that revelation, I've added arm compression, a wrist brace, an unloader brace for my knee, and some sport-related gloves. If I put it all on I'd look like a hockey goalie, but I use them when and where I need them. Compression wear is in common use by younger athletes for training and recovery, for older athletes they are even more valuable. I joke with friends that I'm held together by compression, but there's some truth to that.

Focus On Progression. Once you've started into exercise, you will want to progress, the goals are automatic. The best form of progression is to focus on each element of fitness.

- Cardio endurance — walking, running, cycling, swimming,

- Strength — build muscle mass and bone density with weights, resistance bands, weight machines.
- Flexibility — Yoga, tai chi, stretching, Qi Gong, resistance stretching–all will help flexibility
- Balance– the same activities that aid flexibility also aid balance: Yoga, tai chi, stretching, Qi Gong, resistance stretching. To that you can add balance exercises like standing on one leg, closing your eyes and moving, yoga balls or other balance trainers.

Balancing on one leg is a good test of your current general fitness. See how long you can balance on one leg with your eyes open. Give yourself three tries and take the best of three. Now try with your eyes closed–once again it's best of three.

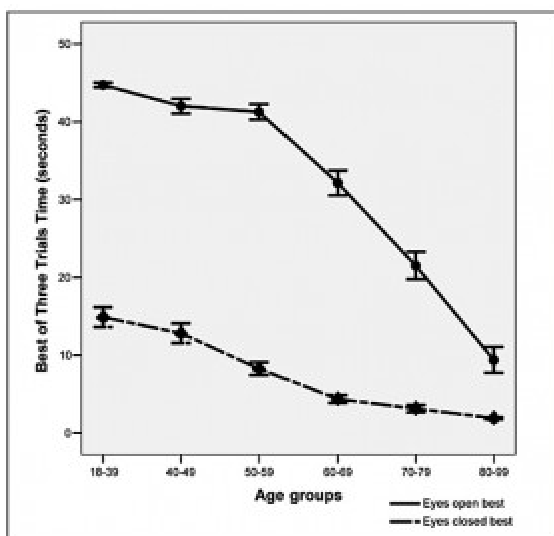


Figure 1. Best of three Trials Eyes Open vs. Eyes Closed Unipedal Stance Test Time (sec).

The test is kind of grim, especially for couch potatoes. I've talked quite a few people into trying it, and I'm surprised at how predictive it seems to be about

general fitness. If you test below your age you have work to do. The good news is that you can improve–and improvement comes with gains in fitness. When you're starting out to improve your fitness the stuff you need to do is a lot more work than fun. But hey, you worked for a living, now work a little to have a good life. Once you start getting into better shape you can have fun and stay stimulated mentally while you get exercise. Here's some ideas:

Get a detailed map of your area. Mark the streets you've never been on. Take your walks there–it keeps your vistas fresh and you'll learn more about your town.

Stretch or do yoga while you watch TV. Beats the heck out of reclining in your chair stuffing cookies in your mouth.

Walk or run with friends.

Get into something more extreme or at least, more fun. Learn to windsurf, paddle a surfski or outrigger canoe. Take a long kayak trip. Hike the Appalachian or Pacific Crest trail.

On a budget? You don't need to spend money to exercise. Gyms are actually lousy places to stay motivated. Weights don't need to be chromed or look like barbells. They can be anything. A pint of water is a pound–bottles full of water can be precisely set for progression. Exercise equipment is super cheap or free on Craigslist or garage sales. So is other sports equipment like kayaks, surfboards, windsurfing or kitesurfing gear. One caveat–if you're going to try kitesurfing, get lessons. It's a flying sport, and the potential for serious injury is high.

Exercise and Weight Management. We all know exercise is important to being fit and losing weight, but to what degree? Can exercise make up for bad eating choices? For example, say you decide to eat a Big Mac with cheese (Calories 704) fries (380) and a chocolate shake (423). That's 1507 calories. Ignoring the fact that it's 75% of the calories most people should eat in a day, and 150% of the saturated fats you should eat (some people would say it's a lot more than 150%), how much jogging would a 240-pound guy have to do to burn that off? The answer−about two hours at a fast clip. Yikes, no wonder we're all getting so fat.

Let's look at it another way. How much exercise do I need to do to lose 1 pound of weight? Pretty simple, we know that 3,500 calories equals about 1 pound (0.45 kilogram) of fat, so you need to burn 3,500 calories more than you take in to lose 1 pound. So if you keep eating as you have been, and increase your exercise enough to burn 3500 calories a week you'll lose a pound a week. And that's why weight loss is slow when you start exercising. It took years for you to get fat, give yourself some time to get fit.

Obviously you could also cut 500 calories from your diet each day to lose about 1 pound a week (500 calories x 7 days = 3,500 calories).

But right here is where we start fooling ourselves and get into trouble. People say "I'm an active person, but I keep gaining weight, it must just be genetic". It's much more likely that the activities you are doing are not as intense as you believe, and you're simply eating too much of the wrong foods. It's the nature of the activities you do that determines how many calories they burn, and some activities that you would assume would burn a lot of calories, actually burn very few.

When you're sitting around, doing office work, driving your car, or reading this article on your computer, you burn about 90 to 150 calories per hour, depending on your weight and muscle/fat ratio with 90 being a 120 pound person, 150 being a 250 pound person. The difference between the sitting around burn rate of 150 calories and the activity burn rate is what you are counting on to burn off that Big Mac meal. Let's say you're going take your 240 pound butt for a brisk walk. Great, that's 414 calories per hour. But it's the difference in calories that matters, so subtract the 150 you burn while sitting around and you're down to 264 calories per hour. That's 5.6 hours of brisk walking to neutralize the Big Mac–25 miles.

If you're going to try to use exercise to lose weight you need to burn 3500 calories more calories to lose a pound a week? That's 13 hours of walking briskly–65 miles a week. The walking you already do doesn't count–that's built into what you weigh now.

We're not saying you can't compensate for eating a lot of food by increasing exercise–elite athletes do that all the time. But it takes a very large amount of vigorous activity. The best way to lose weight and stay or get fit is to both eat better and get exercise. And pick some activities that dial up the burn rate.

This chart shows approximate calories burned while doing various exercises for one hour for three different body sizes. For most exercises, the heavier you are, the more calories you burn, but some sports minimize that difference. Specific calorie expenditures vary widely depending on the exercise, intensity level and your individual metabolism and muscle/fat ratio. Your numbers may vary widely from this table. I have a friend who is a petite Asian woman who, at 120 pounds, eats substantially more than I do at 6'2″ and 235 pounds. She plays three hours of tennis a day, which should account for something like 1500

extra calories burned. Except I've seen how she plays–flat out and competitive with minimal breaks. Probably more like 3000 extra calories despite her diminutive size.

Activity (1-hour duration)	calories burned	calories burned	calories burned
Weight of person	160lb (73 kg)	200lb (91 kg)	240lb (109 kg)
Aerobics, high impact	511	637	763
Aerobics, low impact	365	455	545
Aerobics, water	292	364	436
Backpacking	511	637	763
Basketball game	584	728	872
Bicycling, < 10 mph, leisure	292	364	436
Bowling	219	273	327
Canoeing	256	319	382
Dancing, ballroom	219	273	327
Football, touch, flag, general	584	728	872
Golfing, carrying clubs	329	410	491
Hiking	438	546	654
Ice skating	511	637	763
Jogging, 5 mph	584	728	872
Racquetball, casual, general	511	637	763
Rollerblading	913	1,138	1,363
Rope jumping	730	910	1,090
Rowing, stationary	511	637	763

Softball or baseball	365	455	545
Stair treadmill	657	819	981
Swimming, laps	511	637	763
Tae kwon do	730	910	1,090
Tai chi	292	364	436
Tennis, singles	584	728	872
Volleyball	292	364	436
Walking, 2 mph	183	228	273
Walking, 3.5 mph	277	346	414
Weightlifting	219	273	327

So obviously you're not going to walk, golf, bowl, or ballroom dance your way to fitness. All those activities are fun, but they don't present a real opportunity for weight loss or fitness. Weightlifting is not very aerobic either unless you work hard to make it so, but resistance training builds muscle and muscle consumes calories. For a more complete chart of calories burned during various activities click here.

Unless you are regularly doing one of the strenuous activities listed, you can't really count on your activities to keep you fit. You might wish to believe that surfing three times a week will keep you toned and slim, but look around. Lots of fat surfers. Surfing burns about the same amount of calories as playing golf with a cart or slow ballroom dancing. Lots of sitting around, and you rarely use

your big leg muscles, it's mostly arms and core. Worse yet, the exercise you get from surfing is very unbalanced. You see plenty of old surfers with humped backs.

Standup Paddle Surfing is too new to have an accurate calorie burn rate calculated, but it's obviously more than surfing, especially flatwater or cruising. It's probably in the range of Kayaking, though it engages the leg and core muscles more, and so is perhaps higher.

If you want to get fit and stay fit, you need to either adopt one of the high-calorie burn activities and do it regularly or add some form of workout to your routine. And you have to eat better.

Intermittent Fasting

Critical Stuff: Intermittent Fasting offers health benefits and weight loss.

In This Chapter: Avoid the hucksters. Just do it. No, you won't starve.

Exercise is easier when you're hungry.

There is a substantial and growing body of evidence that intermittent fasting provides substantial health benefits as well as helping with weight control. If you're interested in the science behind it, just google it. There's lots of advice, most of it from "fitness gurus" and people selling some kind of diet plus supplements. There's a good reason for the hucksters to grab hold of this method of weight control and fitness–it actually works. The health benefits that studies have revealed are really surprising. It appears that people can substantially lengthen their lives and be healthier throughout their lives by practicing this simple discipline. But you don't have to read anything or buy anything to make intermittent fasting work for you. It's just a pattern of eating that lowers the overall amount of calories you consume and causes some positive changes in hormone levels in your body. Here are two approaches that are most popular, though lots of people are grabbing onto this approach and branding it with some twist of their own.

Five-two: Pick two days of the week to fast, and eat normally the rest of the week. I fast Tuesdays and Thursdays and eat normally the rest of the week. In theory "normally" means eat whatever you want, but I modify this to maintain some discipline and focus on healthy food and lots of vegetables. My wife is

type I diabetic, so I tend to eat a diabetic diet anyway, simply because it's easier than preparing individual meals. The fast days don't have to be rigorous fasts. If I'm feeling really hungry I eat a tiny amount of food–perhaps a spoonful of cottage cheese, or a small bowl of steamed vegetables. But usually, it's easy to fast for 24 hours as long as I'm busy.

Daily Fast: In this pattern people eat their last meal before 6:00 PM and then skip breakfast the next day, not eating for sixteen hours–meaning they don't eat until after 10:00 AM. the theory here is that your body takes three to five hours to digest your meal, then it enters a "post-absorptive state" where it uses those nutrients. After about 12 hours it enters a fasting state and starts using stored fat for fuel. The daily fast pushes your body into burning some fat every day, something you otherwise rarely do. Some people feel it's much easier to follow this regimen than the Five-two, and some people combine the two regimens, which is what I'm doing.

You might think you should take it easy when you're fasting–that's wrong. If anything you should step up your activity, and I find it easier to exercise when I'm hungry than when I'm not. In fact, I've never had this much energy before. You also need to drink lots of water, which helps curb hunger and makes you feel generally better. The immediate positive reinforcement of this diet is that you feel more vigorous right away. If you're concerned about muscle recovery then eat some protein right after exercise. Doesn't have to be some expensive recovery drink–a glass of milk is fine. When I do a really hard paddle I sometimes grab an individual size bottle of cold chocolate milk from a convenience store–a great recovery drink and man, does it taste good when you're bushed and hot.

I find it also helps to think of what I'm doing as taking a break from eating and

helping my body eliminate the results of overeating and poor diet choices. Just a mental game, but it helps me.

Nutrition and cooking

When I write a chapter I immediately read my writing to edit it for tone, and how well the content is delivered. This chapter and the following one on health seemed preachy and judgemental to me, so I tried to tweak it. But the content resisted change. Yeah, it's preachy and in your face, but it's all true, and there's just no good reason to soft pedal life and death stuff.

Learning to cook healthy, nutritious food for yourself helps fulfill several of the most important elements of retirement–keeps your brain working, helps you stay fit, and helps you stay healthy. It also costs much less than eating out, or eating processed crap. I know I can feed myself for about three dollars a day at current prices. That's a tiny fraction of what I spend, but I know what's possible. Beans and oatmeal are almost free, even at Whole Foods. I can make a big pan of cornbread for less than a buck, add pinto beans with a little ham hock and you have a fantastic meal. You'd be amazed how much delicious meat is in a salmon head that almost any supermarket will just give you. Yeah, I know, that's weird, perhaps you've never paid $40 for a meal of Salmon cheeks with Risotto. I'm taking an extreme, but it's for a purpose. You have time. Learn to cook.

- **Cook your own meals.** Eating out is one of life's great pleasures, but if it's a regular habit or an everyday occurrence, then you're going to get fat and stay fat. You have little control over what goes on your plate and how it's prepared, the portions are too big, and nutrition is a long way down the list of concerns of the cook. Cook your own meals and take control. You might initially find it more expensive to eat quality food than fast food or

processed pre-cooked junk, but once you take control of your diet you'll learn to make the foods you like for much less money.

- **Control your portions.** At home when you're cooking, make just enough for a reasonable portion for each person. Making extra for later is fine if you have the discipline to separate the extra immediately and stick it in the freezer. In a restaurant ask for a to-go box when your food is served. Put half the food you are served in the box to take home. Yes, I said half.
- **Substitute healthy for less healthy.** Replace animal fats with vegetable fats (olive oil, coconut oil replacing butter). Reduce the amount of meat you use (expensive anyway) and replace it with more vegetables.
- **Avoid the middle of the grocery store.** That's where all the processed junk is. If you're going to eat cereal in the morning make it oatmeal and add a little fruit if you have to sweeten it.
- **Know what you're eating.** Food manufacturers stuff sugar and salt into processed food, because it's a cheap way to make food people like. Use that finely honed bullshit detector I know you have. Just because the label says "healthy" doesn't mean it is. A single can of "healthy" soup has all the sodium you should ingest in a day–salt is cheap and it makes the soup taste good so you'll buy it again. There's no concern for health in the food industry.
- **Think about the way a meal is going to make you feel afterward.** You know if you stuff yourself, or eat crap, that you're going to feel like hell. Bloated, sick, tired, weak and pissed off at yourself. Take a good look at that greasy plate of fish and chips or that double bloatburger and anticipate the end result. Then either toss the stuff or take a very small portion. The size of a golf ball is about right. Don't kid yourself about this stuff. If you get the giant

bacon cheesburger with mega fries, cutting the portion in half isn't going to be enough.

- **Drink water.** It's good for you, most people don't drink enough, and being dehydrated makes you hungry. Don't drink soft drinks–no, not diet drinks either. Think of them as they are–poison to your body that you have been conditioned to drink. Don't have them in your refrigerator. If you need some sparkle, get seltzer (carbonated) water or the more expensive but basically identical mineral water with gas. Add some lime or lemon juice or a little fruit juice–like one part fruit juice to five parts seltzer. Tastes great, and you'll quickly lose your taste for over-sweetened soft drinks. They taste hideous to me, because they are. Flavored water with high fructose corn syrup?? It's not even sugar. It's crap.

You should feel comfortable at the end of a meal, but not stuffed. If you do feel like you overate, decide what you should eliminate next time. Most people find that desserts are really too much, but it's challenging to eliminate something you enjoy. Either reduce the portions of everything or trim the dessert to just two bites.

- **Nothing is off limits.** If you want bacon, eat bacon. Just not every meal. No one loves good sausage or a plain old hot dog more than I do. Moderation, moderation. Have as many as you like when you jump off the wagon, but stay on the wagon a long time afterward. The idea that you've failed if you eat some "banned" food is self-defeating. Besides, what we call failure is the best indication that you're trying to improve.
- **Take a break.** Stop eating about halfway through your meal. It takes time for your stomach to communicate that you've had enough. Put the fork down, sit back, enjoy whatever is around you. Drink a full glass of water. Then look

at your plate and decide if you really want what's on it. Mom's "clean plate club" was just nuts–the runway to porkville. What were they thinking.

- **Eat on purpose.** If you sit down in front of the TV with a pint of ice cream or a bag of chips don't be too surprised when it's gone and you feel like you've been slimed. Don't do it. But if you must, put the amount you want in a dish. Make it a small dish. If you want more, drink a glass of water and wait ten minutes.
- **Timing matters.** "Breakfast is the most important meal of the day" is marketing. But if you aren't doing intermittent fasting, then you can treat it as a major meal. Just don't eat crap. A bowl of Count Chocula is the same as a doughnut–flour, grease, and sugar. A muffin is an excuse to eat cake for breakfast. Seriously–look at the recipe. Muffins and cake are identical. You don't need a lot of carbs in the morning, but some protein will help maintain your muscle mass. I like scrambled eggs with a little goat cheese mixed in. Lunch keeps you going, though a heavy lunch might make you loggy all afternoon. Eating a big dinner and going to bed does nothing good for you. Consider Linner instead of dinner–have a very light lunch around noon and make your evening meal happen about three or four o'clock. Tough to do with a family, but if it's just you and your spouse it can work well. That daily mini-fast of 14+ hours until breakfast can make you sleep better and will probably trim weight.
- **Veg out.** Let's keep it simple–you need to double the amount of vegetables you currently eat (unless you're already vegetarian). The fiber in vegetables will fill you up and help you cut back on crap. You should eat at least three cups of vegetables and fruit per day, and that should be mostly vegetables.
- **Green doesn't mean iceberg lettuce swamped with dressing.** Salads should NOT be an excuse to eat mayonnaise. If you're dipping celery sticks in ranch

dressing you might as well be eating french fries. Got to be real about this stuff, folks.

Sugar Sucks and Salt Does Too

Sugar is an apple's way of making us spread its seeds. It's a dirty trick, and it works. If it were only apples, then we'd all be much healthier, but we've refined sugars and made it cheap so now it's hidden in all kinds of things. Besides making you fat it causes spikes of insulin and is hard on your body and mind. People have attempted to use sugar as a defense for murder (the so-called Twinkie defense). Salt is also hidden in all kinds of food, and if you watch the chefs in even fine restaurants you'll see them using amounts of salt in cooking that will bug your eyes out. You need some salt intake, especially if you drink a lot of water when you are sweating profusely, but normally all you need is about half a teaspoon per day. You shouldn't have more than a teaspoon per day.

If you're eating processed food or eating out a lot, you're getting way more than that. Salt is a little confusing since dietitians talk mostly about sodium. Common salt is Sodium Chloride (NaCl) which would be roughly half sodium, but table salt also has iodine and anti-clumping agents added, so it's about 40 percent sodium. Suffice it to say that 1 teaspoon of table salt would be 5000 grams, which is about 2000 mg of sodium, which is all you should have.

Food Manufacturers (that title is really all you need to know) make a concerted effort to hide the amount of sugar in food. Even with labeling requirements, elements of the product that are sugars might be distributed and disguised, so even if sugar isn't prominent there might also be dextrose, cane juice, fructose, maltose, agave nectar, corn syrup, molasses, honey and other ingredients that

are actually sugar. Add them all up and that heart-healthy, all natural granola you're enjoying might have more sugar than Froot Loops. A typical can of soup has more than the daily recommended limit of salt. A box of chicken, beef or vegetable stock has a HUGE amount of salt. It's basically flavored salt water. One fast food meal blows past the limit and never looks back. Gravy, sauces, canned vegetables all can have lots of salt and sugar. Moderation is called for. Make your own soups, sauces and gravy–they're better anyway. Your tastes will moderate quickly and the processed crap will taste like what it really is–over salted, over sugared junk.

Get the Nutrients You Need: Real food has all the kinds of nutrients that we have evolved to require. We didn't have vitamin supplements over the last half-million years, and we don't need them now if you eat well. There's nothing really wrong with most of them, though generally, all they mean is that you will have expensive pee. The big three to pay attention to are Fiber, Protein, and Calcium. If you make sure you're getting enough of those from the foods you eat, then the vitamins, minerals, antioxidants, and other components your body needs will most likely be taken care of.

Fiber: Processed food is generally low in fiber. Manufacturers may add fiber back into the mix in some form, but what a lousy way to get something that is naturally present. Vegetables all have fiber in varying amounts, as do whole grains, oatmeal, beans, and nuts. Dairy and meat contain no fiber.

Fiber stays in your stomach a relatively long time and gives a feeling of fullness, but once it reaches the rest of your digestive system it moves through quickly, carrying fat along with it. Double benefit. We all know it promotes regularity. All the processed crap drugstores sell you to make you poop is the fiber they

took from the processed food you ate that plugged you up. That's just as stupid as it sounds.

Calcium: Like the dairy council says–calcium builds strong bones and teeth. Quite true, but you don't have to drink milk to get it. Leafy green vegetables, broccoli, squash, asparagus–almost any green vegetable is rich in calcium and has fiber. So do beans. But dairy products carry calcium in a form that is readily digested and absorbed, so yogurt, cheese, and milk are fine sources. You can and should supplement calcium if you don't think you are getting enough–you need 1200 mg per day if you're over 50. If you do choose to supplement make sure it also has magnesium and vitamin D and K, which are nutrients you require to absorb calcium efficiently. Most supplements will provide a full daily requirement of these nutrients.

Protein: Both an energy source and the prime building blocks for muscle. If you are over fifty you should have 1.5 grams of protein per kilogram of body weight per day. If you weigh 200 pounds you should have about five ounces of protein per day. But that shouldn't be a steak–at least not every day. Fish, chicken, beans, nuts and soy are all good sources as is dairy.

Low fat??

I think you are better off eating whole products. The less processing the better. Low-fat milk and dairy products might be fine, but most of the low-fat stuff comes from some flawed research that got turned into a dietary scam. Manufacturers found people would pay a premium for stuff packed with cheap carbs, salt and sugar if the label said low-fat. Certainly you should do as you choose, there are people on both sides of that fence screaming with all the fervor of any evangelist. Any time I see that kind of divided opinion my bullshit

detector goes off and I fall back on basic principles. Moderation, portion control, balance, minimal processing.

Don't Get Sick

Critical Stuff: Take care of your body, or brace yourself for a really next crappy thirty years.

In This Chapter: Life in a bubble. Good doctors, bad doctors. Hospitals and other previews of hell.

The only part of your health you control is what you do to your body and what you stick in your mouth. That's enough.

Remember how you were supposed to die at 62.7 years old? Well you didn't, did you. The reason is simple, you're healthier than people used to be in 1935, and you have access to medicine that actually helps. Everyone talks about the good old days, and how Uncle Eustace was healthy right up until the day he died–at 64. When I was a kid everyone smoked, everyone drank themselves to a stupor regularly, and everyone ate crap. Watch a movie from the fifties–everyone is drinking at a level that gives most adults the shivers. And smoking like chimneys. They drove cars without seatbelts, rode bicycles and motorcycles without helmets, rode in boats withour PFDs, and died like flies.

You didn't do that, and you had access to reasonable nutrition and decent medical care, so you're still alive. What next?

The choice is yours. Thirty years being old, fat, weak, lonely, depressed, sick

and broke from medical expenses is one option. You can go that way if you like. But you don't have to.

Let's talk medical expense. Fidelity Investments estimates that a 65-year-old couple in average health who retired in 2015 would need $245,000 of their own savings to handle 20 years of out-of-pocket retirement health costs. Well that sounds like fun. But if you're unhealthy that can more than double. The easiest way to save on medical expenses is don't get sick. Sure, genetics, random chance, the quality of medical care in your area, environmental effects, and dumb luck all have great influence on your health. But the part you have the most control over is how you take care of your body–both basic health and preventative measures. If you smoke, drink to excess, don't exercise, eat too much, and eat crap then stop doing all of that. Just. Stop.

Lets make this simpler for some of you. If you smoke, and won't quit, don't bother reading any further in the health section. You're excused. It's not going to help you. Sure, there are some folks that smoke until they are ninety. There are also folks that win the lottery. But neither of those are going to be you.

For the rest of you: You can't spend your life in a bubble, but you can take a little more care than you are used to. There's good reason to–as you age your immune system generally becomes less effective. It's can go bannanas on you and give you a dreadful autoimmune disease, or it can get weakiner and weaker until you can't shrug off a minor infection or a bout of pneumonia. Lights out.

One in three deaths in the USA happen before the age of 75 and more than 75% of these premature deaths are as a result of:

- cancer

- heart disease
- stroke
- respiratory disease
- liver disease

Smoking, drinking too much alcohol, poor diet, lack of physical activity and being overweight are key contributors to each and every one of the big five factors for early death. But perhaps more importantly, you might get one of the big five, and manage to survive it–sort of. If you do, the rest of your life is going to be very, very different.

Reduce your risk of cancer

More than one in three people will develop some form of cancer during their lifetime. Lung, breast, prostate and bowel cancer account for more than half of cases. Smoking causes almost all lung cancer. Poor diet is the likely cause of bowel cancer and pancreatic cancer. Prostate and breast cancer are partly genetic but diet, weight, and exercise are all factors, and frequent screening can catch these cancers and increase survival rates substantially.

Reduce your risk of heart disease

Most cases of premature death from heart disease are preventable. Smoking, being overweight, having high blood pressure and/or high cholesterol, heavy drinking and physical inactivity are all key risk factors.

- Get a physical. Now, and every few years. A lot of the stuff that will screw you up is detectable. I race cars. To keep my license I need to have a yearly

physical and a cardiac stress test every other year. I've always come through clean, but I know a lot of guys that I race with who didn't–they credit their frequent physicals with saving their lives. Every year might be a bit much, but maybe not, and most insurance will cover a yearly physical. It's an hour or two out of your day.

- Exercise reduces your risk of heart attack by 30% or more depending on who's doing the counting. You don't have to hit the gym–walking, swimming and cycling are great.
- If you're fat, you're taxing your heart every day. But you know that.

Reduce your risk of stroke

First of all, understand that time is tissue–brain, heart or lung. If you understand the symptoms of stroke you can get emergency treatment that minimizes the damage.

High blood pressure is a key cause of stroke. If you have high blood pressure, get treatment. You don't necessarily have to take drugs, cutting your salt intake might do it. But take the medicine while you're reducing salt. Once you hit normal you can try going off the drugs–under your doctors direction. If he doesn't want to try getting you off the drugs without some REALLY good reasons, get another doctor.

Reduce your risk of respiratory disease

Respiratory disease ranges from asthma to COPD (Chronic Obstructive Pulmonary Disease). COPD is almost completely avoidable–it's smoking, 85%.

The other 15% of cases are from fumes and dusts or very rarely (much less than 1%) a genetic tendency to develop COPD.

Reduce your risk of liver disease

Liver disease is a silent killer, most people have no idea there's anything wrong until their liver fails and it's too late. The three main causes of liver disease are heavy drinking, obesity and viral hepatitis. You can be vaccinated for viral hepatitis, the rest is up to you.

Now get healthy

After you've done what you can to avoid the big five, there are a host of things you can do to make your life better, increase flexibility, lose weight, increase energy, and generally feel better. I'm not a doctor, if you're sick, see one. These are just some things I play attention to, in a simple list:

Sleep more. Get a full eight hours of sleep. If you don't have a particular reason to rise at a specific time, experiment with optimal sleep times for yourself. I'm physically active all day and don't care for television in general, so my usual bedtime is about 9:00am and I'm up at 5:00 am. That's eight hours of sleep, and I sleep well. I like having a few hours before anyone else wakes up to do some writing and some quite morning routines.

Dance. It's good for your bones, your flexibility, and your spirit.

Enjoy music. I used to be a concert freak, but now it's just recorded music.

With the unbelivable access of the internet you can hear anything you want, whenever you want it. I use that capability a lot.

Spend time with friends. A big part of health is attitude.

Stretch. Especially your joints.

Cinnamon–it tastes great in all kinds of things, and there's a substantial body of evidence that it does good things for Cholesterol. You won't hear that from many doctors. Big surprise. When I was working as a mechanic and getting 10 percent of the parts sold, I didn't tell people they could just clean their spark plugs either. Blueberries too–a general antioxidant that may stave off altzheimers. Frozen is fine, but fresh berries taste better.

Vaccinations: Flu, tetanus, pneumonia, shingles. Cheap, and generally effecitve.

Eating deliberately. Are you hungry, or just following a routine, or maybe feeling stressed or bored and some chocolate chip cookies would help. Fix the symptom instead of feeding it. Go do something. Don't eat just because it's lunchtime. And if you do, eat what you want, not what is put in front of you. Small plates. Put the 12 inch plates away and use 9 inch ones, except for salad. A giant salad with light dressing is satisfying and good for you. In restaurants, ask for a to-go box before you start eating. Put half your food in and take it home. Restaurant portions are too big.

Thirsty? Drink water. Lots of water. Bored with that? Get a carbonation system and make carbonated water. Add a little mint, a squeeze of lemon, a splash of

mango puree, pineapple jusce–whatever. almost no calories and it tastes good and clean.

A single square of dark chocolate will satisfy your craving if you give it time. Have one and go about your day–satisfied.

Weight traing. Doesn't have to be in a gym. Get some resistance straps and look on the web for complete strength training routines using them. Lots of health benefits, but most important it slows the muscle loss you experience as you age.

Take a walk. Even just around your neighborhood. Good for your body and your mind.

Back exercises–the YMCA healthy back program works wonders–google it, though you'll find the first ten pages want to sell you something. Simple arched back stretches help greatly.

Clean your teeth. Brush, floss and see the dentist for cleaning. Besides the usual oral nastiness, cankers, infections and other unpleasantness, heart disease is strongly linked to gum disease. Stroke is also linked, though not as convincingly.

Remember I said drink water? Drink more. Drink a lot of water. There's a limit to how much is healthy, but you're no where near it. If your pee is dark yellow, you're dehydrated. Not good for you and there's an easy answer: Drink water.

The best way to get Omega 3 fatty acids is eating oily fish, like wild salmon. If you're not that much into fish then fish oil capsules may be a worthwhile supplement.

If you're over 50 you should make sure you're getting at least 1200mg of calcium per day, but that needs to be coupled to manesium and vitamin D consumption. You can get that with food and dairy, especially vitamin-D enriched milk, or you can supplement with an approporate daily vitamin pill.

Get a pedicure. Feet and nails need care or you can host toenail fungus and other fungal infections. These infections link to many systemic and immune diseases. It gets challenging to care for your feet as you age. An occassional pedicure from a practitioner who is careful with sanitation will help control these infections. Feels great too.

FINANCIAL DISASTERS

Getting By